

WB940
R569m
1901

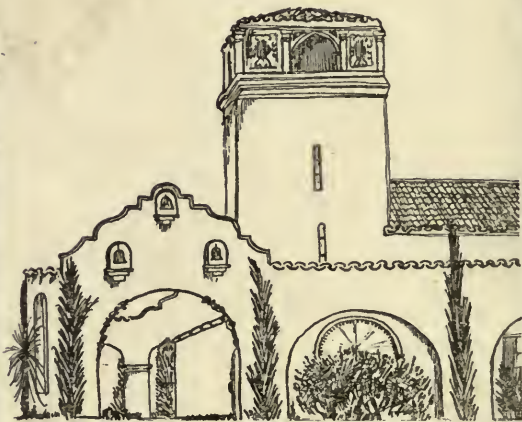
A
0
0
0
5
1
0
2
0
7
4



UC SOUTHERN REGIONAL LIBRARY FACILITY

California
Regional
Library

Presented by
William F. Madsen, D. O.



COLLEGE OF OSTEOPATHIC PHYSICIANS
AND SURGEONS • LOS ANGELES, CALIFORNIA

12/11-05

Dayton B. Holcomb

Dr. William F. Madsen
610 South Euclid Avenue
Pasadena, California

Wm. B. Hooper



Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

A MANUAL OF

***Osteopathic
Manipulations
and Treatment***

...BY...

WILFRED L. RIGGS, D. O.

AUTHOR OF THEORY OF OSTEOPATHY

Formerly Dean and Professor of Physiology and Lecturer and Demonstrator on Theory of Osteopathy in Still College of Osteopathy and Member of the Examining and Operating Staff of the S. S. Still Infirmary; Demonstrator in Clinics Still College; Member and Trustee A. A. A. O.; Professor of Science Idaho State Normal.



ELKHART, INDIANA

New Science Publishing Company

...1901...

WB 940
R 569m
1901

Copyright 1901
By
New Science Publishing Co.

A MANUAL OF

Osteopathic Manipulations and
Treatment

TO

All who labor in the realm of drugless medicine, and who implicitly trust to the efficiency of a perfect anatomical arrangement to secure and maintain health, this little volume is dedicated by

THE AUTHOR

Illustrations.

6
W
1901

PLATE	PAGE
1. Relaxing the Spinal Muscles.....	14
2. Relaxing Muscles of the Neck.....	19
3. Raising the Ribs.....	23
4. Spinal Extension.....	27
5. Relaxing Muscles of Shoulder.....	31
6. To Set the First and Second Ribs.....	35
7. Relaxation of the Lumbar Region.....	39
8. Neck Extension.....	43
9. Springing Spine Forward.....	47
10. Correcting a Lower Dorsal.....	51
11. Correcting a Lateral Dorsal.....	55
12. Correcting an Anterior Dorsal.....	59
13. Setting a Dislocated Rib.....	63
14. Raising the Clavicle.....	67
15. Bias Stretch.....	71
16. Correcting Posterior Vertebra.....	75
17. Relaxing Muscles of Shoulder.....	79
18. Setting Eleventh or Twelfth Rib..	83
19. Treatment of the Liver.....	87
20. Stretching the Sciatic Nerve.....	91
21. Treating the Fifth Nerve.....	95
22. Treatment of Ninth, Tenth and Eleventh Nerves..	99
23. Stimulating the Liver.....	103
24. Correcting a Lateral Cervical.....	107
25. Inhibiting the Abdominal Plexuses.....	111
26. Setting an Atlas.....	115
27. Setting a Sacro-Iliac Clip.....	119
28. Correcting an Upper Dorsal.....	123
29. Relaxing Structures at the Saphenous Opening...	127
30. Correcting a Lateral Dorsal Vertebra.....	131
31. Stretching the Piriformis Muscle.....	135
32. Turning a Rib Upward.....	139

William J. Hudson, D.D. 102-52

29381

Preface.

THERE has long been a need among students and practitioners for a manual of movements used in Osteopathic practice. This work in no way supplies the place of a practice of medicine, but it does include in a complete and yet *concise* manner all that is peculiarly *osteopathic* in the diagnosis and treatment of disease.

The manipulations are those which the author has tried and knows to be effective; no experimental movements are given. The book is not intended for the general public, but it supplies a particular niche in the practice of Osteopathy. These treatments were learned from four sources, viz: The American School of Osteopathy, Kirksville, Mo.; the Still College of Osteopathy, Des Moines, Iowa; the practitioners in the field; and, from actual experience in practice.

THE AUTHOR.

Introduction.

LIFE is a reaction. Its basis is three-fold: Mind which directs it; physical organization which makes it possible; and the chemical changes which accompany, and are a part of all its processes. The body is a machine for the transformation of energy. By its subtle changes the latent force of the food is converted into the highest type of human energy. The quantity and quality of this change determines the individual. The completeness of the change and the proper distribution of the energy determine the health of the individual. This energy-machine must be in perfect order, else there will be interference with both the quality of the change and its distribution, either of which conditions is abnormal. All life processes are effected through motion.

The lymph, the blood, all the fluids of the body, the tissues, require to be kept constantly moving. Cessation of motion means imperfect changes, sub-oxides, stagnation, death. To meet these conditions Osteopathy offers the following:

First. Correction of sub-luxations, luxations, and contractures.

Second. Removal of all irritations, central or peripheral, affecting the nervous system.

Third. Removal of impediments to the passage of the forces and fluids of the body.

Fourth. A perfect method of increasing or decreasing the activity of the glandular tissues; and

Fifth. Through the vaso-motor system a perfect control of the blood supply to every organ of the body.

These effects are based upon known physiological laws. There is no empiricism in Osteopathic practice.

Osteopathy is that science of healing which emphasizes the diagnosis of diseases by physical methods with a view to discovering, not the symptoms, but the causes of disease; and treats the same by manipulation, the purpose and result of which is to restore the normal condition of nerve control and blood supply to every organ in the body by removing physical obstruction, or by stimulating or inhibiting functional activity as the condition may require.

Osteopathic Examination.

ANY case that presents itself merits an examination as careful as can be made. The urine, the sputum, the thorax and the abdomen should be examined according to the classic methods used for years by the medical profession. Anything which will give an insight into the condition of your patient is yours to employ, and you are culpable if you do not use it. But there is a deeper meaning to the word palpation than is commonly applied to it. That meaning is the osteopathic one. True palpation is par excellence the osteopathic method of examination. It is through his trained touch that the Osteopath determines a dislocation of bone, a tightening of tendon or cartilage, or a contracture of muscle. These are the conditions to which he attributes disease in many instances. These are the conditions which the Osteopath corrects in his treatment of readjustment. The patient's clothing should be arranged so as to allow free access to the spine and to the thorax.

That we may intelligently examine a spine we should be thoroughly acquainted with the general topography of the back. The normal spine has

four curves, as follows: (1) The *cervical*, concave backward, extending from the apex of the odontoid process to the second dorsal. (2) Beginning at the middle of the second dorsal and extending to the twelfth, its concavity forward, is the *dorsal curve*. The most prominent point is at the seventh and eighth dorsal. (3) The *lumbar curve*, from the middle of the twelfth dorsal down to the angle between the fifth lumbar and the base of the sacrum, its concavity being directed backward. (4) From the base of the sacrum to the tip of the coccyx, its concavity forward, is the *pelvic curve*,

Care must be taken to become thoroughly familiar with the normal, in order that any variation from this type may be detected. There are variations within a limited range, even in health. The dorsal and pelvic curves are primary and are due to the shape of the vertebræ, while the cervical and lumbar are secondary and compensatory and exist only after birth, their existence being due to modifications in the form of the intervertebral discs.

The lumbar curve, beginning at the sacro-vertebral articulation, drops forward very abruptly and if this should be further increased in appearance by well developed nates, the physician may be deceived. The test must be made by a careful examination for tenderness on pressure. The spines should lie in a perpendicular plane while the

patient is sitting or standing erect, though there is often a slight lateral curvature in the dorsal region, the convexity of which is directed toward the hand which is habitually used. The tips of the vertebral spines should lie in a perpendicular plane, which may be tested by bringing the hand briskly down over the spines either directly over them or with two fingers, one on each side of their prominences. By this method one may detect any deviation from the usual position, and if tenderness be present it is an evidence of a lesion; and, reasoning from cause to effect, the organ or organs affected may with certainty be determined. But care must be used in the matter of finding a lesion. The atlas has no spine, only a mere tubercle and no surprise should be manifested at finding it "forward." The second cervical is perhaps the most prominent feature in the cervical region of a normal spine, and its widely bifurcating and massive spinous process may give the beginner some uneasiness. The cervical spines are bifid from the second to the sixth inclusive. The *vertebra prominens* is close to the first dorsal, the latter very commonly being mistaken for it.

To examine, bare the spine; have the patient sit erect. Note the curves, whether they be normal, diminished or accentuated. A flat region in the upper dorsal means lung and heart action impaired, and weakened vitality. If the fifth to tenth dorsal

are anterior, or if the lumbar, dorsal and cervical are almost in line there is stomach or intestinal disorder. Any marked deviation from the normal curve in the lumbar region may result in constipation, ovarian or uterine disorder, or derangement of the function of the bladder. The sacral vertebrae are relative to each other always in place, but they may be slightly out of their true articulation with either the auricular processes of the ilium or with the lumbar vertebra above or the coccyx below. In lesions of the lumbo-sacral and sacroiliac articulations you will find pelvic disturbances. The coccyx may by dislocation cause constipation, hæmorrhoids and piles. Detect any lateral curves that may be present by careful inspection. Friction will bring into view the spines and any marked separation or deviation from the perpendicular, the patient sitting erect, should call for careful palpation.

Locate the second cervical by its prominence. The first dorsal by the length of its spinous process. The third dorsal by the level of the scapular

PLATE 1.

Relaxing the Spinal Muscles. Patient lies face downward. The physician places his hands palm downward at the level of the first dorsal vertebra near the spines. Have patient thoroughly relax all muscles. Now press with the hands upward and slightly outward, and repeat the action at the spine next below. Do this for each spine in succession. The greatest pressure will be needed at points of muscular contraction. In case of an unusually muscular patient one hand may be placed upon the other, relaxing first one side and then the other.



PLATE 1.

spine. The seventh dorsal by the angle of the scapula. The fourth lumbar by the fact that a line joining the iliac crests will pass through its body.

The twelfth dorsal may be conveniently located by having the patient fold his arms and lean forward thus throwing into prominence the trapezii, whose converging external borders will indicate the twelfth spine; or, better, by the articulation with the last rib; or, by the natural break between it and the first lumbar. After being satisfied with inspection, a careful examination with the hand will detect any irregularity that the eye may overlook. The spines are the key to the situation, but tenderness in addition to abnormal position must be found.

Each operator will have his preference for position of the patient. For a thorough examination several positions may be necessary. The following order is suggested, the back being exposed in all cases:

First. Patient sits *erect*, operator standing behind.

Second. Patient leans forward, sitting squarely, hands on knees.

Third. The patient is placed facing operator, first on right and then on left side. The operator carefully examines each spine and transverse process in succession. During this examination the patient must thoroughly relax. The operator uses

arms and legs of patient as levers for movement in examination.

Fourth. Patient on back, body straight so that nose, chin and point between feet are in straight line, arms at sides. The operator now stands at head and examines both sides of vertebræ of neck. The *spines* of cervical vertebræ cannot be relied upon for diagnosis so we examine transverse processes. Deviation from a straight line either antero-posteriorly or laterally indicates trouble at that point. An examination of its spine will usually confirm this result. The atlas can be examined only at its transverse process which should be easily felt about half way between mastoid process and the descending ramus of the inferior maxilla. Tenderness is usually, if not always, most pronounced on the side of the slip. The end of the little finger may usually be passed between the transverse process and the ramus of the jaw if in normal position.

The following facts are of importance in locating certain structures.

The *sixth cervical spine* is opposite the cricoid cartilage and the beginning of the œsophagus.

The *seventh cervical spine* is at the level of the apices of the lungs.

The *eighth thoracic spine* marks the lowest level of the heart and the central tendon of the diaphragm.

The *ninth thoracic spine* is at the level of the cardiac opening of the stomach.

The *tenth thoracic spine* marks the lowest level of the lungs.

The *eleventh thoracic spine* is at the lower border of the spleen and the upper border of the right kidney.

The *first lumbar spine* is at the level of the renal vessels, and the pelvis of the kidney.

The *second lumbar spine* is opposite the receptaculum chyli and the third portion of the duodenum.

The *third lumbar spine* lies just above the umbilicus.

The *fourth lumbar spine* is at the level of the aortic bifurcation and the iliac crests.

The *end of the coccyx* marks the junction of the first and second portions of the rectum.

PLATE 2.

Relaxing Muscles of the Neck. This usually follows the relaxation of muscles of spine. Standing at the side of the patient place one hand on the patient's forehead, the other on the muscles of the neck. Pressing firmly on the muscles bend slightly and rotate the head toward you, and then reverse, bending and rotating in the opposite direction. This should be done at each of the cervical vertebra in succession. This should be followed by standing at patient's head and placing the hands, one on either side, on the muscles along the transverse process of the cervical vertebra. The hands lying flat the neck may be bent from side to side. This treatment should be given at each vertebra in succession, beginning with the seventh. The above movements will thoroughly overcome muscular troubles in the cervical region.



PLATE 2.

The spinal nerves have their origin from the spinal cord as follows:

The eight cervical nerves come from the spinal cord above the level of the sixth cervical spine.

The upper six dorsal nerves arise between the levels of the sixth cervical and the fourth dorsal spines. The lower six dorsal, between the fourth dorsal and the eleventh dorsal spines.

The five lumbar nerves arise between the levels of the eleventh and twelfth thoracic spines.

The sacral nerves take origin between the last dorsal and the first lumbar spines.

Osteopathic Centers.

OSTEOPATHY bases its claim to rank as a science of healing upon the fact that there exists a definite and fixed relation between an organ and the central nervous system. This relation is secured through the segmented arrangement of the spinal nerves or through the sympathetic system, by means of rami communicantes. The order of this innervation is fairly constant, though, as in the case with other portions of the body, it may vary. This variation in no wise invalidates the claim of Osteopathy to rank as a science, but it emphasizes the necessity of our searching for lesions even in regions relatively remote from the center. Specific treatment in the sense of work exclusively upon a region said to be a center is rarely indicated. Owing to the diffusion of pain and its attendant conditions, it is necessary to remove any contracture which may be associated with it. Again, it sometimes occurs that disease of an organ produces no effect on its usual center, and in such an event it is necessary to carefully examine other regions for the trouble. Know the location of the centers. Know also that occasionally a lesion causing the trouble

must be found elsewhere. "Touching the button" is fascinating, both in theory and in practice, but the operator must be broad enough to expect it to be difficult occasionally to locate the button.

Our use of the term center is in the sense of a convenient and advantageous place to reach fibres to or from a certain organ. We now point out some of the more important of these centers:

The atlas is associated with disturbances to the vaso-motors of the eye, ear, and with eczema and other diseases of the face.

The axis and third cervical is a general vaso-motor center, through the superior cervical ganglion, and also a center for side of head, face, eye, nose, pharynx, tonsils and vessels of the brain.

Third, fourth, and fifth cervical, origin of phrenics, center for hiccoughs.

Fifth and sixth cervical, middle cervical ganglion,

PLATE 3.

Relaxing the Muscles of the Upper Dorsal Region, and Raising the Ribs. Patient on back. Standing at side of patient's head, take the arm with your corresponding hand and place the other, palm upward, beneath the shoulder, the ends of the fingers flat against the angle of the rib. The arm is now pulled upward and forward, at the same time the patient takes a deep breath. The arm is continued upward and then backward. When it is in such position as to throw the greatest tension on the rib, the patient releases his breath and the arm is returned to his side. The hand beneath the rib must continue pressure against the angle until the arm is returned to its natural position. This is effective for any of the ribs from the third to the eighth inclusive, as the seventh and eighth may be controlled through their sternal attachments. Two operators, one on each side, may give this treatment to good advantage.



PLATE 3.

center for thyroid gland, also augmentors to heart through middle cervical ganglion.

The general function of the cervical region is that of (1) vaso-constrictor effect through sympathetic fibres passing into it from below through the second, third, fourth and fifth dorsal, and vasodilator fibres in the cervical spinal nerves, thus affecting all parts of the body; and (2) local vasomotor effects on the neck, head and face of the same side. That the upper cervical region is sometimes said to be a center for the kidney is based upon its influence over the general vasomotors of the entire body.

Second to sixth dorsal are vaso-constrictors to the pulmonary blood vessels.

Third to seventh dorsal, vaso-motors to arm via the brachial plexus.

Seventh cervical and first dorsal, inferior cervical ganglion, heart, thyroid gland, vertebral and basilar arteries.

Annulus of Vieussens and second, third, fourth, and fifth dorsal, augmentory fibres to the heart.

The first three give regularity of rhythm.

Fourth and fifth control regularity and strength of beat.

Fourth dorsal, sometimes third or fifth, stomach center on right side usually. General effect as low as the eighth.

Second and third dorsal, center for ciliary

muscle. Center for vomiting. Center for bronchial tubes and bronchi.

Sixth to tenth dorsal, origin of the great splanchnic, carrying visceroinhibitory fibres and vaso-constrictor and secretory fibres to the stomach and small intestine.

Eighth, ninth and tenth dorsal on right side, center for the liver. This gives us the center for chills, as the liver and spleen are implicated in malarial attacks.

Ninth and tenth dorsal on the left, center for the spleen. In treatment of chills the general condition must be controlled through cardiac and vaso-motor centers, directing especial attention to the liver and spleen. Also center for uterus via hypogastric plexus.

Eleventh and twelfth dorsal and upper lumbar, the small intestine and kidney.

Eleventh and twelfth dorsal, center for ovary.

Second lumbar, center for parturition, micturition and uterus.

Second, third and fourth lumbar, center for diarrhœa.

Fourth and fifth lumbar, hypogastric plexus, which with fibres from the aortic plexus forms the pelvic plexus, distributing fibres to the pelvic organs.

The anterior division of the sacral nerves are splanchnic in function and are distributed to the

rectum, to the bladder, sphincter ani, vagina and uterus. These seem to be chiefly visceromotor in function.

Second and third sacral, bladder.

Fourth sacral, vagina.

Fourth and fifth sacral, sphincter ani.

After a general view of the centers along the spine it is necessary to form a resume of their location by mentioning the chief organs of the body and with them the regions in which they may be affected through their vaso-motor, visceromotor, inhibitory and secretory nerve supply. Generally speaking the circulation is controlled through the great vaso-motor centers, reached in the upper cervical region. It is further controlled through the region from which the augmentor fibres make their exit—the second to the fifth dorsal. It is also affected by treatment in the splanchnic region controlling the vaso-motors to the great capillary network of the mesenteries.

In case of a disturbance in any of the following organs or members look for your spinal lesions as follows:

PLATE 4.

Spinal Extension. Patient on back. Reach over arms as in the plate. The ankles should be held by an assistant or else fastened. The physician takes hold at angles of ribs and pulls. The body may be slightly rotated and also swung from side to side. This is an excellent treatment for the spine in contractures, nervousness and curvatures. It should never be omitted in the last named condition.

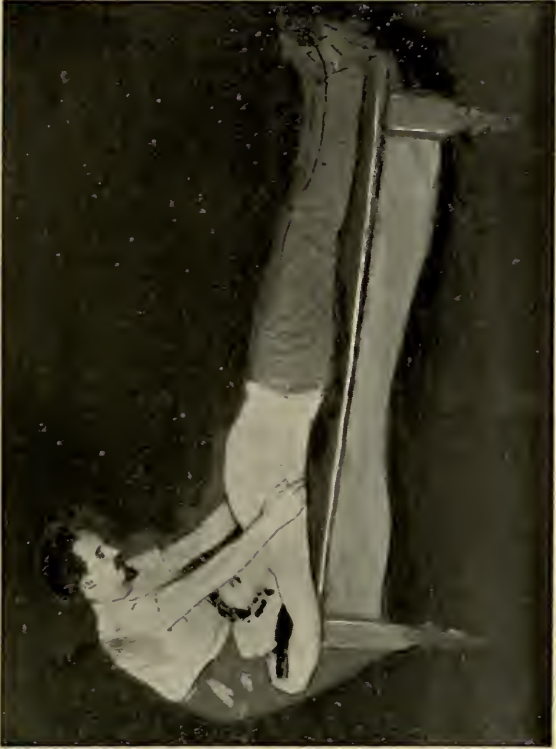


PLATE 4.

Eye: Atlas, third cervical and second or third dorsal.

Ear: Second to fifth cervical.

Brain: From first cervical to first dorsal.

Pharynx, larynx and tonsils: Second and third cervical.

Thyroid gland: Fifth and sixth cervical, general vaso-motor and cardiac center; seventh cervical and first dorsal—head of first rib, clavicle.

Arm, motion, vaso-motor and nutrition: Brachial plexus in fifth, sixth, seventh, eighth cervical and first dorsal; also vaso-motors in third to seventh dorsal.

Lungs and bronchi: Second to sixth or eighth dorsal; also vagus nerve.

Heart: Fibres from second to fifth dorsal, especial attention to fifth dorsal. Heart may also be reached through middle and inferior cervical ganglion, and at first rib, or annulus of Vieussens.

Stomach: Third to fifth dorsal specific on right side; third to eighth generally; also vagus.

Liver: Ninth and tenth dorsal, vaso-motor, vagus motor.

Spleen: Eighth to eleventh dorsal, vaso-motor, vagus motor.

Duodenum: Great splanchnic, sixth to tenth dorsal.

Jejunum and ileum: Lower dorsal and lumbar to fourth, and fibres from solar plexus.

Colon: Second to fifth lumbar; also fibres from solar plexus.

Rectum: Second to fifth lumbar via inferior mesenteric plexus, inhibitory. Sacral via hypogastric plexus, motor; also third and fourth dorsal.

In treatment of the abnormal viscera in addition to specific treatment it is always beneficial to give direct treatment to the abdomen, paying particular attention to the region of the solar plexus. This has the effect of changing the blood by compression, thus relieving venosity and allaying increased peristalsis; or in case of sluggishness of any organ it stimulates the plexuses of Auerbach and Meissner to motion and secretion. It may, also, break up masses of fecal matter lying within the abdominal canal.

Uterus: Second to fifth lumbar, ninth and tenth dorsal.

Genitalia generally: Second to fifth lumbar.

Bladder: Second, third and fourth sacral.

Sphincter ani: Fifth sacral.

The knowledge of the location of these centers is of incalculable advantage to the Osteopath since it is upon this knowledge that the accuracy of his diagnosis and treatment depends. An osseous lesion in the area which we have designated as a center for a certain organ may lead to a diseased condition of that organ; while a lesion of an organ may manifest itself in tenderness within its center

along the spine. This tenderness may be found in the following localities:

First. On the ends of the spinous processes, usually indicating an anterior condition.

Second. Above the spinous processes and about an inch lateral at the articulation of the rib with the transverse process of the vertebra, indicating a lateral movement and often a tipping forward of the body of the vertebra.

Third. The soreness may be manifested at the angle of the rib, indicating a rotation of the rib upward or downward on the axis connecting its two extremities.

Fourth. Associated with any of these three conditions may be found soreness in the muscles lying in that region on either side of the spinous process.

To determine these conditions the patient may be sitting or lying.

Gentle pressure will determine any sensitiveness. To examine the angles of the ribs in the interscapular region the arm on the same side should be grasped at the elbow and firmly passed

PLATE 5.

Relaxing Muscles of Shoulder. The first position is shown in plate five. The elbow of patient is placed against some fixed point of the physician, either the ribs or the ilium. Push with the body against the elbow and press toward you with the hands. By moving the body up and down the rhomboid and the levator anguli scapulae may be alternately tightened and relaxed. The shoulder and scapula should be rotated on the body, one hand pressing on the vertebral border of the scapula.

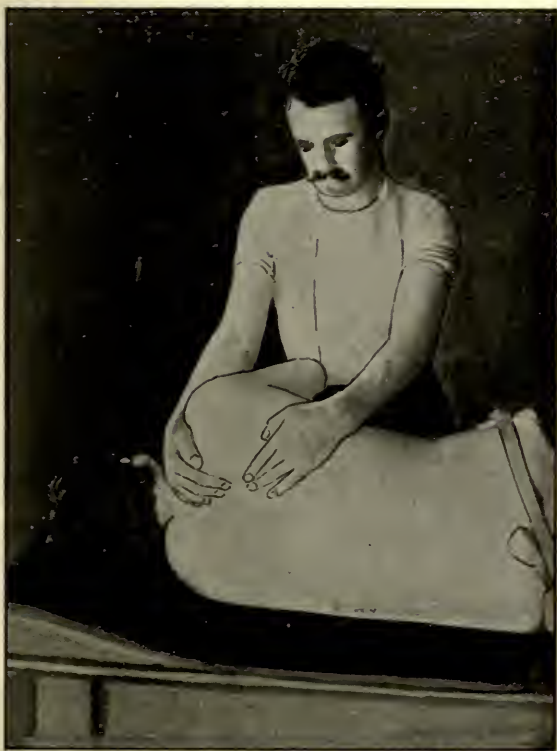


PLATE 5.

across the chest. This will tighten the muscles and expose the rib from the covering of the scapula. In all these cases the muscular contraction must be released; to do this the patient should be placed upon the table and a firm and steady pressure applied to the muscles, the skin being lax, passing either upward or downward. This will release the pressure and may be sufficient in acute cases. In addition to this, an oscillation of the body from side to side, bending at the lesion, will prove helpful, as will rotation around the same point. Springing the spine forward will produce a good effect by releasing muscular and ligamentous contractures.

A General Treatment.

THE osteopath who treats all cases alike is not in any sense deserving of the name, yet there are many cases in which it is helpful to administer what is known as a "general treatment;" as when there is complaint of "ennui," lassitude and drowsiness, torpidity of glands, weariness, lack of circulation, loss of appetite and similar conditions. This is the most easily administered of osteopathic manipulations, and has given use to the common belief that there is no possible harm in osteopathic treatments. This is an error. A general treatment, if given gently, produces no harmful effect, but if incautiously administered by one ignorant of the science, may do incalculable injury.

Proceed as follows: First, have patient (prepared by removing clothing so as to permit spine to be exposed) recline on table. Relax muscles of neck by gently rocking head from side to normal position, at same time putting pressure with other hand upon muscles of side of neck. Do this for each side. Then lift patient's head in one hand and put pressure on muscles on back of neck. Repeat this three or four times. This will relax

the muscles of neck and aid in equalizing the circulation through the cervical sympathetics. Next, with patient on side, using arm as lever, press upon muscles of the spine, beginning at first dorsal and going downward through each region of the spine successively. This is done for both sides. The patient next lies on face, the arms hanging freely. Thorough relaxation is necessary. The physician then presses strongly upward and outward on the muscles from upper to lower portion of spine. Patient now lies on back with legs flexed. The abdomen is kneaded thoroughly, following the course of the colon. The regions of liver, spleen and pancreas are thoroughly kneaded. Lastly, spine is thoroughly stretched by placing patient in "swing" so feet will just reach the floor, then standing behind him he is pushed forward or laterally; or patient lies on back and an assistant grasps ankles while operator takes hold of the

PLATE 6.

To set the First and Second Ribs. The ribs are usually turned upwards. To set them, thoroughly relax all surrounding parts. Then draw the head laterally to elevate the rib thus exaggerating the condition. Put thumb on head of rib and finger on middle point; now bring the head back and up to normal position pushing downward as the head is released.

The patient may sit and with one hand on the rib as above, with the other the physician may grasp the arm and pull the shoulder downward, pressing on the rib as before. To raise the first or second ribs the physician may utilize either the scapula, pressing upward at the head and angle of the rib, or downward as in the previous movement, or by pressing upward at head and angle of rib and pulling upward on the clavicle he may secure the same result.



PLATE 6.

shoulders and steadily stretches. The value of this is accentuated by steadily oscillating the body from side to side. The physician may place palm of one hand on patient's chin, another at occiput and stretch as before. Use care in this treatment as injury may be done.

TO SET A RIB.

All osteopaths agree that the dislocation of a rib is of frequent occurrence. To correct, first determine the exact *nature* and *amount* of the dislocation. To raise vertebral portion, patient lies on opposite side; with one hand grasp patient's arm and forcibly extend it, swinging it upward across face; at same time, with the other hand, strong pressure is applied at head of rib with fingers and at angle with the thumb, presses inward and upward. The patient strongly inhales as the arm is thrown upward, then the arm is brought downward and the patient exhales. The pressure at the vertebral portion is maintained until the arm is returned to its normal position. (See plate 17.)

OTHER METHODS.

Position same as above. Place patient's elbow against your abdomen or chest. Reach over and with your hands free ribs from vertebræ by pressure outward on angles. Then turn them upward or downward as is necessary.

Patient lies on face; after a thorough relaxation, place thumb of one hand on angle of ribs, or between angle and head, the other hand beyond the angle pressing upward or downward as is necessary, then suddenly through pressure on head of rib with thumb turn the head into its place.

Patient may lie on back, the physician places his hand under the patient with palms of fingers under the affected rib. Draw arm across chest and grasping elbow firmly press outward and downward. This relieves the rib from pressure and allows it to slip into place. A very successful method of raising a rib consists of putting the knee in back against the angle of rib, reach around opposite side to sternal articulation. Have patient draw full breath. Then draw the arm up and backward, pressing the rib into its position by the hand in front and knee behind.

Diseases

Their Osteopathic Causes, Conditions and Treatment

ACNE.

THE Osteopathic treatment consists in stimulation to the kidneys and correction of spinal lesion at eleventh, twelfth dorsal or first lumbar and in the cervical region interfering with the action of the vaso-motors. Also, correction of any condition which may affect the action of the bowels. The vaso-motors should be stimulated and all impediments to the circulation removed. In cases of females it is essential that all uterine disorders be corrected. Some cases are remarkably obstinate. Pay especial attention to diet.

Diet. Milk, eggs, cereals, meat broths and game. Avoid all pastry, sweets, and greasy foods.

PLATE 7.

Relaxation of the Lumbar Region. Patient as in plate. The palmar surfaces of the fingers are placed on either side of the spines. The knuckles rest on the table. The patient is lifted on the flat portion of the fingers, the pressure being upward and outward. This movement should be repeated several times at each point. This is an excellent treatment in kidney trouble, lumbago and in female troubles.



PLATE 7.

AGUE (MALARIA, CHILLS AND FEVER, INTERMITTENT FEVER.)

In this disease the Osteopath considers a parasite as the exciting cause though the general condition of the patient makes the disease possible. Corrective treatment is directed towards the lesion usually found at the seventh to eleventh dorsal vertebræ. To aid in restoring the system the liver and spleen should be vibrated daily as these glands are directly implicated. The chill may be broken by strong stimulation of dorsal nerves, third to eleventh. This will usually produce a perspiration in three to five minutes. To prevent the pyrexia, strongly bend head backward holding firmly the vertebral arteries at junction of atlas and occiput; this may be alternated with steady pressure on the inferior cervical ganglion at head of first rib. The sweating may be relieved by steady pressure in the upper dorsal region and by sponging with tepid water. The bowels must be kept open.

Diet. Avoid all foods tending toward biliousness and constipation.

ANÆMIA.

Anæmia is not a disease but a symptom. The causes are various; so must be the nature of the treatment. The most common causing conditions are to be found in the lesions which produce constipation, digestive troubles, menstrual disorders and

derangement of the circulatory system. Common chlorosis will yield to strong stimulation in the circulation centers, together with corrective treatment for various lesions mentioned above. A very common lesion is in the lumbar region, second and third or fifth, causing either constipation or uterine disorders, one or both. Thorough vibration of the liver and spleen, stimulation at the eighth and ninth dorsal, together with correction of any lesion at this place will be of value. Frequently a depressed clavicle and drooping ribs are causes. Should digestive disturbances accompany the condition, look for displaced rib or vertebra from fourth to eighth dorsal. Outdoor exercise, cold baths, change of occupation will all be valuable.

Diet. Milk between meals and especially at bed time, eggs in all forms, rare meats and ice cream.

Avoid pickles, vinegar, gravies and rich sauces.

ANGINA PECTORIS.

In true angina there is a neurosis of the nerves to the heart. In pseudo anginas the trouble is intercostal. Occasionally it is reflected from the stomach. Examine carefully the thoracic wall, second to sixth rib and vertebræ. In nearly all such cases the third, fourth or fifth ribs on left side will be found sub-dislocated. This dislocation is usually at the vertebral end. There is marked tenderness at the angle of the rib, at the costo-chondral or costo-

sternal articulations, and usually along the intercostal spaces. Occasionally the first rib is deflected. Look carefully to the fifth and sixth cervical for disturbances at the middle cervical ganglion. Anterior or lateral curvature in upper dorsal region is common. In cases of tachycardia and high blood pressure a steady pressure on middle and inferior cervical ganglion will be effective. In cases of bradycardia the heart may be aroused by thorough stimulation of these points. Friction over the heart and separation of the ribs will be valuable. The use of tobacco, alcohol, etc., must be prohibited. Quiet outdoor life is indicated. The false anginas may be completely cured. True anginas can be relieved, but perhaps never cured.

Diet. Use concentrated, nutritious and easily digested foods.

APPENDICITIS.

The lesion in this disease is to be found in the lower dorsal and lumbar region. This may be

PLATE 8.

Neck Extension. With one hand take hold of the head just below the prominence of the occiput, the thumb extending to the mastoid process of one side, the fingers reaching to the corresponding point on the opposite side. The other hand clasps the chin. Steady traction is then made, the neck being kept straight or nearly so. A slight oscillation will sometimes be useful in relaxing the structures. Care must be taken not to rotate the neck while traction is being made. By throwing the head forward the ligamentum nuchae and the ligamenta subflava may be stretched, relieving tension on the nerves of the cervical and brachial plexuses and relaxing muscular contractions in cervical region generally.



PLATE 8.

either primary or it may be merely contraction, the result of constipation, impaction, etc. This disease may be a sequella to various acute diseases. The treatment should be directed towards correcting the slip in the vertebræ and this will in most cases be effective. Examine the eleventh and twelfth ribs carefully. Gentle manipulation over the right iliac fossa, quiet manipulation of the limb with external rotation is of some value. Constipation and impaction must be overcome by the enema. Osteopathy has been marvellously successful in this disease. Hot applications will be of value in removing congestion and pain. Treatment should be administered several times daily in order to keep the pain and inflammation under control. Avoid cases in the late stages.

Diet. Milk and buttermilk, beaten eggs, nutritive broth. Avoid foods with residue.

APOPLEXY.

In addition to the usual precautions in nursing, bathing, diet, etc., the Osteopath would proceed as follows: First thoroughly relax the congested and contracted muscles of the cervical region; this will reduce pressure by facilitating drainage and by decreasing vaso-constrictor action. The circulation may be further equalized by thorough quieting manipulation of the muscles of the back on either side of the spine. Dislocated atlas and axis

are apt to be causes of these conditions. Reduction of these dislocations will give relief in some cases. Clavicle and first rib are important structures.

Manipulation of affected nerves and muscles will be valuable in maintaining vitality of tissue. Keep bowels open and kidneys active. Ice bags at head and neck, and heat at feet are advised.

Diet. All nourishing foods in liquid form. Soft cooked eggs, beef broth, etc.

Avoid alcoholic stimulants.

ARTHRITIS.

The cause is often remote. Examine carefully for evidences of uterine trouble in female. The disease seems to be a referred effect upon the central nervous system of peripheral irritation. There are usually spinal lesions which correspond with joints affected. The treatment consists in correcting these lesions, manipulating the nerves to the joints and in thorough massage of surrounding structures to induce lymphatic absorption and to facilitate drainage. The depurative organs must be kept active and the circulation maintained at its normal. The affected joints must be extended and flexed several times at each treatment. Bathing is a valuable adjunct to our treatment. If taken in early stages a cure is the rule. Later, the prognosis is not so favorable. There is no particu-

lar virtue in a short course of treatment, and you should make it thoroughly understood that months and even years may be required to effect a cure. Diet and exercises are valuable.

Diet. Good roast beef, beefsteak, mutton, fowl, fish, eggs and milk. Avoid low diet.

ASCITES.

The lesions in this condition must vary with the cause. The condition may result with disturbed heart action, valvular incompetency, hepatic and renal affections. Careful examination of these organs must be made to determine the location of the lesion. Vertebral or costal slip from seventh to tenth may be a cause of hepatic obstruction. The lesion will be eleventh to twelfth dorsal if from renal disturbance, and from third to sixth dorsal if due to cardiac incompetency. Stimulate the

PLATE 9.

Springing Spine Forward. Figure of Eight Movement.
Diarrhoea Treatment The fingers of one hand are placed at the upper lumbar vertebra, the spinous process between the third and fourth fingers. The other arm reaches beneath the legs at the knees. The legs are now strongly elevated while pressure is applied with the other hand. Hold for about fifteen seconds. This may be repeated for the three or four upper lumbar. To increase the efficacy of this treatment the patient's legs should be moved so as to describe a figure-of-eight movement; draw them toward you, then upward, and down as they are swung back to the table. The movement is continued through the opposite side. Two or three movements of this kind will be sufficient. Steady pressure should be applied to the lower dorsal and lumbar regions after these movements. These movements will cure flux, diarrhoea, dysentery, etc.



PLATE 9.

heart action, increase the drainage. A general treatment in addition to the specific treatment is indicated. Treat daily until the excess of fluid is overcome. Cases taken early yield readily; advanced cases are more obstinate, and in many instances cannot be controlled. The diet is an important part of the treatment, and must be varied according to the organs affected.

Diet. Must be dry diet, consisting of bread and meat chiefly. Some advise a liquid diet; we do not think this wise except where urine is very scant.

· ASTHMA.

The lesion in this disease is usually to be found in the region of the third to seventh rib. The condition is usually caused by one or more of these ribs being thrown downward. This lesion may occur on either side. There is usually tenderness on pressure at the angles of the ribs and at their costo-transverse articulation. Tenderness is sometimes manifest at the head of the first rib.

Raise the ribs by any of the methods given. (See plates 13, 17 and 32.) Strong inhibition at the inferior cervical ganglion is palliative. In some cases pressure at the head of the first rib will relieve the most violent paroxysms. Treat twice a week; it is rarely necessary to treat oftener. Stop treatment when lesion is reduced.

Prognosis. Is good. Almost all uncomplicated cases yield in one or two months.

ATAXIA, LOCOMOTOR. (TABES DORSALIS.)

In this disease there is always a spinal lesion, although it is impossible to say where it will be found in a given case. Usually the trouble is in the lumbar and lower dorsal regions. In some cases there are lesions of ribs implicating the intercostal nerves. Thoroughly relax the spine with extension, reduce the dislocations, separate the ribs. Control the gastric crises in the dorsal region by correction and by steady pressure. The exacerbation of pain may be overcome by inhibition in the lumbar region. Give strong external rotation and steady pressure on the sciatic nerve about midway between the great trochanter and the tuberosity ischii. Require patient to gradually leave off the use of morphine, as little or nothing can be done while the patient is using opiates. Applications of heat may be useful.

Prognosis. Nearly all cases may be alleviated—most of them permanently benefited—a few cured. Long and persistent treatment is necessary.

Do not promise a cure, as it is impossible to foretell the result even where there is a definite lesion. It may be secondary or incidental.

Diet. A generous diet may be prescribed, such as butter, gravies, cream, cod liver oil, etc. Avoid liquors, tobacco, etc., to excess.

ATROPHY, PROGRESSIVE MUSCULAR.

In this disease, whose cause is unknown to the medical world, the Osteopath has had but slight experience. The condition would indicate trouble in the upper dorsal and cervical regions. The trophic nerves to the muscles of the arm seem to be associated with the brachial plexus and may be affected either through it or through its vaso-motor control in the upper dorsal region. Attention to the cervical ganglion is indicated. Look for involvement of the vertebral arteries. Thorough relaxation and extension of the cervical and dorsal spines will be helpful. Or the lesion may be found in the lower dorsal and lumbar region. Bathing and exercise in moderation are valuable.

Prognosis. Is bad. All that may be expected in advanced cases is to stay the progress of the disease.

Diet. Any nourishing foods.

PLATE 10.

To Correct a Posterior Lower Dorsal or Upper Lumbar Vertebra. After a thorough relaxation patient is placed on side. The legs and thighs are as shown in cut. One hand is placed on the posterior vertebra, the other clasping the legs. By means of the body weight the thighs are pushed up against the abdomen thus exaggerating the condition. The hand now presses strongly against the vertebra and the legs are suddenly straightened. The sudden release and pressure forward on the vertebra will throw it back into its position. By reaching over as in plate and pulling upon spine, the knees being held against the body, the deep contractures in this region may be overcome.



PLATE 10.

CHINE

PHYSIC

LOS ANGELES (1913)

PLATE

10

(1913)

BOILS.

Look to the emunctory organs. As a preventative the skin must be thoroughly cleansed daily. Friction with a turkish towel will aid in obtaining this result. Where the boils are confined to certain regions the indications point to a local lesion interfering with the drainage. If the head and neck are affected the trouble is in the cervical region. If the lower limbs are affected look for the trouble in the lumbar and sacral regions. In all cases stimulate the lymphatics by manipulations. Look for circulatory disturbances; the liver and spleen are frequent causes of this condition. The sexual organs may be at fault. Sexual perversion or irregularity may cause it.

Diet. Cereals, fruits, lean meats, broths, light vegetables and buttermilk. Avoid butter, gravies and all greasy foods, rich milk, sugars, etc.

BRAIN TROUBLES.

The Osteopath's work is directed toward two primary objects:

First. The equalizing of the general circulation of the blood.

Second. The continued control of the blood supply to the brain and the correlative drainage.

To accomplish these ends the circulatory centers are first thoroughly treated; the muscles, ligaments and tissues which surround them are relaxed by

pressure and by movements which will stretch the tissues. The next treatment is a stimulation put upon the deeper structures so as to secure the action of the heart and arteries. The third to fifth dorsal is the region for this work. Next, raise the clavicles; notice carefully the first rib and put steady pressure on the inferior cervical ganglion. The solar plexus, controlling the lumen of the mesenteric vessels, aid in controlling blood pressure. The hand laid firmly over the solar plexus will reduce general arterial pressure and by equalizing the flow will relieve congestion in any part of the body. The tissues of the neck demand a complete relaxation. This is for drainage. Then by holding the vertebral arteries for three to five minutes, the head thrown backward, the cerebral congestion is overcome. In cases of cerebral congestion the feet should be placed in warm water and ice bags applied at basis crani.

Diet. A frequent change of diet is advisable. Foods should be light, nourishing and laxative.

BRIGHT'S DISEASE.

Spinal lesion is from tenth dorsal to second lumbar. This must be corrected. There is always contraction of muscles and tightening of ligaments in this region, though there may be no osseous lesions. The patient lies first on face, and steady pressure upward and outward of the muscles of the

dorso-lumbar region will give a thorough relaxation. Oscillating lower part of spine has the desired result. Patient lies flat on face. Place one hand firmly on spine at point desired and apply steady pressure; with other hand oscillate the limbs from side to side. Place patient on back, legs and thighs flexed, leaning over patient place fingers under the spines and lift him on finger tips; or give the same treatment, the patient lying completely extended and thoroughly relaxed. The patient's weight is thus an aid to the end sought. Stretching the spine in the swing is indicated. The warm pack, sweating and alkaline waters are adjuvants. Several months' treatment will be necessary in pronounced cases.

Diet. In no disease is the diet of more importance than in this.

Skimmed milk is the all-important food in many cases; if patient is an invalid, seven or eight pints a day will be sufficient; if patient exercises a good deal

PLATE 11.

To Correct a Lateral Vertebra in the Dorsal Region. After a thorough relaxation and spinal extension, patient is seated as in plate. The hands are placed on either side of the vertebra which is misplaced. The patient is held on stool with the knee. The physician lifts up and at the same time bends the spine in the direction opposite to the curvature. This exaggerates the condition and loosens all connective tissue bindings. The body is then thrown to the opposite side and pressure is brought to bear on the vertebra, forcing it into position. By suspending the patient from the shoulders in "the swing" the treatment may be given very effectively.



PLATE 11.

add cereals, nuts, rice and stale bread to his milk diet.

Avoid meats, alcohol, tobacco, etc.

BRONCHITIS.

In either acute or chronic bronchitis the treatment is directed to the vaso-motors of the bronchial tubes as well as to the motor filaments. The best results are obtained by stimulation at the second, third and fourth ribs. The patient is placed on stool and these ribs are elevated by pressing thumb against the head of the rib and throwing the arm upward and slightly backward. Use care to avoid dislocating shoulder. Patient is placed on side and ribs are separated by holding rib with one hand and lifting rib next above with other hand. This is done with the first four ribs consecutively. The patient is next placed on back and the costal cartilages are separated by placing the fingers between them, then turning fingers and spreading hands at the same time. At close of treatment put your knee in upper dorsal and bring arms up and back, the patient taking deep inhalation, then exhaling as the arms are released. Acute cases should be treated daily or oftener.

Prognosis. Good.

BRADYCARDIA.

For this symptom the cause must be found. In most cases the trouble is in the sympathetic fibers

of middle and inferior cervical ganglion. The lesion is usually in the upper dorsal. Rarely it is a reflex from peripheral disturbance to the pneumo-gastric (tenth cranial) nerve. Stretching the spine, raising the clavicles and correcting the upper ribs will usually correct the difficulty. There is marked tenderness at the spines of the second to fifth vertebræ, with contractures and tenderness between the ribs at their vertebral portion. There is usually a corresponding tenderness between the ribs anteriorly; in many cases it is most pronounced at the sternal—or costo-chondral articulation. I have found a strong dilation of the sphincter ani very effective in securing a permanent cure.

Prognosis. Recovery is the rule.

BLADDER TROUBLE—CYSTITIS.

The lesion may be peripheral through irritation from preputial adhesions, etc., or from morbid substances in the bladder itself. In case of much pus it is best to thoroughly wash the bladder with movements. Then correct the osseous lesions. potassium bichromate or hydrogen peroxide.. The second, third and fourth sacral nerves will be found involved. Often the twelfth dorsal and first lumbar are at fault. Sometimes the trouble is at the second and the third lumbar. Always relax thoroughly in these regions by steady pressure and by stretching. Thorough relaxation in the ischio-rectal fossa

works through the perineal branches of the pudic nerve and thus allays the irritation of the bladder. The rectum should be examined, as it may reflexly affect the bladder. The prostate gland is often involved.

Prognosis. Favorable.

BILIARY CALCULI—(GALL STONES.)

The liver is usually enlarged and shows marked tenderness on palpation. The characteristic lesion is usually to be found at the eighth to tenth dorsal, or at the corresponding ribs. In case of paroxysms relief is obtained on pressing inward at a point two inches above and the same distance to the right of the umbilicus. Thorough manipulation of this entire region, together with a downward movement in the line of the bile duct, will aid in expelling the calculus from the duct. A strong stimulation at the margin of the cartilages of the ninth and tenth ribs will produce peristalsis

PLATE 12.

Correcting an Anterior Dorsal Vertebra. The patient sits on stool, the physician standing behind him with the knee firmly pressed against the vertebra next below the one which is dislocated. The physician places his hands on the ribs corresponding to the vertebra which is dislocated and by pulling backward the vertebra can be slipped into its place. Patient should hold the lungs full of air till the force has been applied. The same result may be accomplished by having the patient lie on back and bend the body up onto the dorsal spine, then throw the weight on the spinal column, holding the vertebra above the anterior one as the point of support. This is a very effective movement, but should be administered with care.



PLATE 12.

of the cyst and ducts and aid in relieving this condition. The ribs should be elevated and separated. Any osseous lesions at the eighth to tenth dorsal must be corrected. A general stimulation to the heart and lungs is indicated so as to increase oxidation processes.

Prognosis. Relief is almost certain. A cure is the rule.

CALCULUS,—RENAL.

The treatment is directed to the liver and the kidney regions in the spine. Gentle manipulation downward over the line of the ureter is indicated during the passage of a stone. Relief may also be obtained by steady pressure at tenth dorsal to first lumbar. Gentle manipulation of the abdomen over each kidney is useful. Thorough relaxation of the quadratus lumborum eases the condition. In case the urine shows uric acid, alkaline waters are indicated. If oxalate of lime, then thorough general treatment must be given to increase oxidation. The patient must take plenty of outdoor exercise. The respiratory activity must be increased by placing the knee in back and drawing the arms upward, or by any other method. The hot bath frequently gives relief.

Prognosis. Treatment usually effects a cure.

Diet. Meats, if urine shows phosphates; milk and vegetables, if it has uric acid deposit. In either

condition patient must drink not less than four pints of water daily.

CARDIAC TROUBLES.

In case there are irregularities or incompetency much may be done toward correcting the condition, but a cure is impossible in organic lesions after puberty.

Lesions. At cervical vertebræ, fifth to seventh; at head of first rib; at fifth dorsal and fifth rib on left side; tenderness at costo-chondral articulation of fifth rib, sometimes fourth to sixth.

Treatment. Relax the muscles in regions named; correct any osseous lesions. Raise the ribs and separate those on left side. Set fifth dorsal and fifth rib. Raise the clavicle. A cure is rare; marked improvement is the rule.

Diet. Give nourishing food, all digestible meats, etc. Avoid soups and liquid diet, coffee, tea and all alcoholic drinks.

CATARACT.

In this condition there is usually reflex or a primary disturbance at the atlas or the cilio-spinal center in the upper dorsal region. In 1 per cent there is diabetic condition; in 6 per cent urine shows albumen. This shows that the quality of the blood and the condition of the nervous system are strong conditions favoring the disease. Absorb-

tion by thorough drainage is the only Osteopathic indication. Correct any lesion in cervical and upper dorsal regions. Treat the superior cervical ganglion very lightly, not oftener than two or three times a week. The eye should be vibrated daily by laying the fingers of one hand on the closed lids, and rapidly, yet lightly, striking it with the other. By moving the eye from side to side with thumb and finger the lymphatics are stimulated. The general health of the patient must be carefully attended to by out-door exercise. See that patient is correctly fitted with glasses.

Prognosis. In many cases success has attended Osteopathic treatment. Unless there is decided improvement after two or three months' treatment a surgical operation should be recommended.

Diet. Must be nutritious in order to build up entire system.

CATARRH—CORYZA—RHINITIS.

Lesion. Usually in upper cervical region.

As an adjuvant, daily morning sponge-baths in cool or cold water, followed by a brisk rub down

PLATE 13.

Setting a Dislocated Rib. This movement is effective when ribs are turned downward. Patient is seated on stool. The physician stands as in cut, one knee being placed beneath the head and angle of the rib that is displaced. The rib is held anteriorly as in cut. The patient takes deep breath holding it while the physician elevates the arm as shown. The rib is turned upward with the hand, the knee pressing firmly against the angle. The arm is now thrown backward, downward and forward to its natural position.



PLATE 13.

should be recommended. Daily exercise in breathing deepest possible inhalation and holding the breath as long as possible, followed by forcible exhalation, is a great feature in securing proper circulation and oxidation. Do not allow mouth-breathing; close mouth by chin support at night. Treat by relaxing the muscles in upper cervical. Treat superior cervical ganglion at the second and third cervical. Strongly inhibit at supra-orbital, infra-orbital and mental foramina. Strongly press on nose at inner cauthus. Bring the thumbs down on either side of nose briskly several times. Dipping the finger in cold water, reach back through mouth to posterior nares and gently move the tissue from side to side. Put fingers just behind angle of inferior maxillary, and while pressing gently have patient open and close mouth; repeat several times.

Prognosis. Favorable.

CHICKEN POX.

This disease rarely requires the aid of a physician. Isolation until desquamation is completed is necessary. Daily sponge baths and airy rooms will aid. In case of temperature, reduce it by holding the sub-occipital region or by pressure on the inferior cervical ganglion. A general treatment will relieve any unpleasant feeling. Vaseline or oil will allay the itching.

Prognosis. Good.

CHOLERA INFANTUM.

The Osteopathic treatment consists in steady pressure on abdomen over solar and inferior mesenteric plexuses. A very gentle manipulation of abdomen is good. Steady pressure over splanchnics and spinal nerves, from the dorsal to the coccyx, will usually give relief; the thumbs pressed on either side of spine in lumbar region, with patient lying on his face, is the most effective treatment. The spine should be sprung forward by bending legs upward and backward, pressing in lumbar region. Treatments must be given several times daily. Enemas, as hot as the elbow may comfortably endure, may be given. This should be of castile soap suds and not less than two pints so as to thoroughly wash the colon. This may be followed by an injection of cooler water with tannic acid, twenty grains to the pint, to precipitate the poisonous proteids.

Prognosis. If taken early, good—later, doubtful.

Diet. No milk must be given until all symptoms have abated. No food for twenty-four to thirty-six hours. A spoonful of champagne or a little whisky and water will prevent collapse. Baths in warm mustard water with friction also aids in preventing collapse. After twenty-four hours give barley water; next, meat-juice broths and egg albumen.

CHOLERA MORBUS.

To stop the nausea and vomiting, pressure is applied at fourth and fifth rib on right side, at same time separate the ribs by elevating the right arm. Treat by steady pressure on the splanchnic and lumbar nerves. An enema of hot soapsuds is indicated. Keep the patient quiet. Little water should be allowed. Thirst may be relieved by iced tea without sugar, or by cracked ice. Treatments may be rather severe in case of adults. Nothing should be eaten while symptoms are pronounced.

Prognosis. Good.

Diet. Meat broths, milk and lime-water in small quantities until convalescent, then restore usual diet very gradually.

 CHOREA—ST. VITUS' DANCE.

Lesions. When affecting the face and arms only, the lesion is found in the cervical vertebræ or in the upper dorsal region, either the rib or the vertebræ. When only a set of muscles are involved the lesion is in the spinal region, which marks the emergence of the nerves to the muscles involved.

 PLATE 14.

Raising the Clavicle. Patient as in figure. The arm at his side. Place your thumb beneath the clavicle about the middle point. Now bring arm upward as in plate, continuing it upward, backward and downward. This motion should be made very slowly and may be repeated two or three times at every treatment.



PLATE 14.

Thorough spinal treatment, including thorough extension, together with correction of the lesion will produce a cure. In cases of long standing there may be no marked tenderness at the seat of the lesion.

Uterine trouble in females, constipation and flatulency are conditions to be suspected and corrected if present.

Stimulating baths and outdoor exercise are beneficial.

Prognosis. About 50 per cent are cured.

Diet. A nourishing diet should be prescribed.

CIRRHOSIS OF LIVER.

Look for lesion in the splanchnic region, usually at or near the eighth to tenth dorsal. Stimulation of these nerves with correction of the vertebral lesions will be effective. Raise the ribs from sixth to tenth. Often there is contracture of the intercostal muscles which irritate the nerves from this segment of the cord. Examine the nerves of the diaphragm and the ribs to which the diaphragm is attached, as this muscular partition may be at fault by preventing drainage. The spleen is often involved and much enlarged. The patient should lie on his back with legs flexed. The liver should be thoroughly kneaded. The patient may take a deep inspiration, and as the breath is released the operator presses upward under the seventh to

tenth costal cartilages. The use of alcohol must be interdicted. If accompanied by inanition, dyspepsia and malnutrition the stomach and intestines must be carefully manipulated. Give careful attention to the heart centers (first and fifth ribs). If ascites is present give a thorough stimulation of the kidneys, anteriorly and a relaxation and inhibition over kidney center, eleventh dorsal to first lumbar; avoid liquid diet when ascites is present.

Prognosis. Doubtful.

Diet. Milk with toast and crackers; hot water in large quantities.

Avoid fats, sweets and fried foods.

COLD—CORYZA.

Thorough relaxation of all the tissues of the neck and stimulation of cardiac centers are indicated. Thorough stimulation of the dorsal region will close the mesenteric capillaries and throw blood to the surface. Stimulation of the fifth nerve at all its exits is well. Put patient to bed; give hot foot bath and hot lemonade. Induce perspiration. Use caution that there is no exposure following sweating.

Prognosis. Good.

CONSTIPATION.

Lesion. Lesion in lumbar region, usually twelfth dorsal to third lumbar. Sometimes due to dislo-

cated coccyx. In females retro-flexion or retro-version may be the cause. Occasionally a lesion in the liver region, sixth to tenth dorsal, produces this condition. Atomy of the bowel, impaction and, in rare cases, invagination of the intestines are causes.

Treatment. Correct the vertebral lesions. In all cases, except strangulation, the liver must be treated both directly and in its splanchnic nerve supply. The bowels must be kneaded, following the line of the colon. Usually begin at the left iliac region over sigmoid, kneading with a downward motion, yet moving each time to a higher portion of the intestines. In this way the entire large intestines should be treated. The coccyx must be set if dislocated, and the sphincter dilated with a rectal dilator, as it is more effective than the fingers. Never use oftener than twice a week.

PLATE 15.

Patient on side as shown. Place one hand on the iliac crest and the other on the scapula near the inferior angle and on the iliac border. Draw the ilium forcibly forward, at the same time rotating the upper part of the trunk backward by pressure on the scapula.

This elevates the ribs, elongates the quadratus lumborum muscle and removes pressure in the lower pelvic region. Now the motions should be reversed—the shoulder coming forward, the iliac thrown backward. This treatment is invaluable in all cases involving slips in the lumbar or lower dorsal regions. Lumbago, crick in the back, kidney troubles are either cured or helped by this treatment.

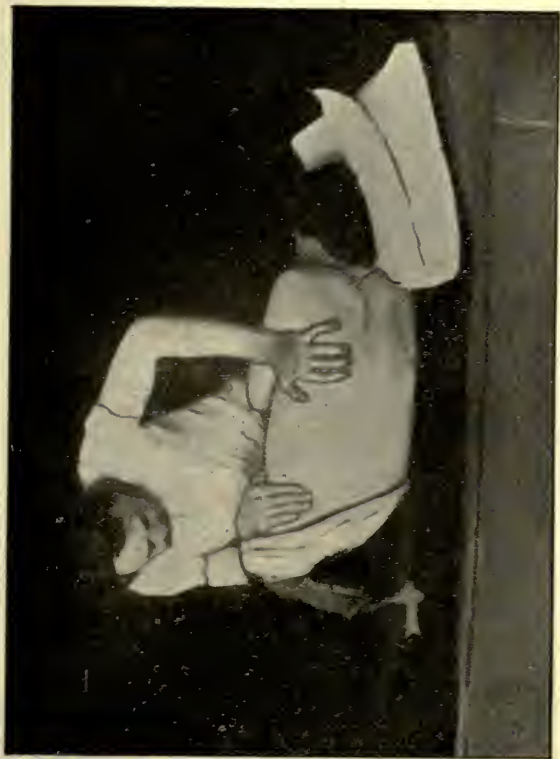


PLATE 15.

Outdoor exercise will be helpful, as will light gymnastics.

In complicated cases I have found most satisfactory results from liver vibrations and from kneading the abdomen. Urge regular hours for stooling.

Prognosis. Good. Treatment is usually effective in from four to ten weeks.

Diet. The diet is an important adjunct. Fruits, cereals and plenty of water are indicated. Little meats but an abundance of oils and fats. A glass of cold water before breakfast and a pint of hot water on retiring will give good results.

CONSUMPTION (PULMONARY PHTHISIS TUBERCULOSIS OF LUNGS).

Always include a sputum test in your examination of pulmonary troubles.

Lesions in addition to symptoms usually mentioned, ribs depressed and tenderness at angles of ribs covering effected part of lung. Also marked tenderness in intercostal spaces, and at the costochondral articulations. The spine is invariably straight or anterior in the dorsal region, the normal curve being practically obliterated.

Rarely a turned rib or, perhaps, two or three will be the sole cause of the symptoms in suspected cases. See that clavicles are not depressed.

Treatment. Treat vigorously in the dorsal region from first to eighth. Pay particular atten-

tion to the circulation. Inhibit at inferior cervical ganglion to reduce rate of heart beat. Raise the ribs by any method. Separate them anteriorly by placing fingers between the ribs with palmar surfaces flat downward, press gently and turn the hand. Place patient on a stool with knee in back, draw arms upwards and backwards, the patient inhaling deeply. Night-sweats are controlled by strong inhibition in dorsal region. Keep patient out doors as much as possible with some light occupation; insist on light exercise and sunlight.

Prognosis. Favorable in early stages. In advanced cases there is no hope of complete cure. Unpleasant symptoms can be abated in all cases and patient made easy.

Diet. The diet is of primary importance. Idiosyncracies must be consulted, but meats, ripe fruits and fats are the basis. Cream, butter, oils and eggs, unless there is gastric trouble. In emaciation there is nothing better than cod liver oil. It should be discontinued in case it interferes with digestion. Nutrition is the key to recovery.

CONVULSIONS.

If from poisonings, of course the proper antidote is indicated. Look for phimosis, otitis, indigestions, teething, worms, etc. To check the convulsion, grasp the head firmly, one hand on forehead and the thumb and second finger of the other in the

sub-occipital region. Bend head strongly backward. Hold in this position. An assistant grasping the ankles and putting extending force on spine is also helpful. Free the neck so as to give perfect drainage to the brain.

Knead the abdomen in intestinal and gastric troubles.

In convulsions from dentition a hot bath, 95 to 96° F., is recommended, with cold applications to head.

Prognosis. Good.

COUGH.

Treatment will depend on the nature of cough. In many cases it is due to an elongated uvula. For this, dip finger in cold water and gently manipulate the palate and uvula. In case it is pharyngeal look for lesions in upper and middle cervical. If bronchial, the lesion is usually at second or fourth dorsal or along the corresponding ribs. In all cases thoroughly relax the muscles of the neck. Then inhibit by steady pressure, slowly moving

PLATE 16.

Correcting a Posterior Vertebra. Muscles of back must be thoroughly relaxed. Then patient takes position as shown. Physician presses steadily at several points of spine until the patient is thoroughly relaxed. Then the thumbs are placed at the transverse processes of the displaced vertebra and sudden pressure is applied. This will usually correct the trouble in a few treatments. It is sometimes necessary to give a month's treatment by way of preparation. Placing one hand on the vertebra and with the other swinging the head and chest from side to side will produce the desired result.



PLATE 16.

the hand downward over the trachea on either side from the first ring of trachea downward to sternum.

Relax the sterno-hyoid and sterno-thyroid muscles. Contracted muscles often cause the irritation here.

Pressure at the third dorsal will usually relieve the paroxysm. In pneumonia and other pulmonary troubles it is very necessary to be able to relieve the coughing as it prevents exhaustion. The point will usually be found from second to fifth dorsal, at which place steady pressure and throwing the ribs upward will be efficacious.

Remember, a cough may be symptomatic of many troubles; find the cause; it may be from any organ of the body.

CROUP.

Thoroughly relax all muscles of the neck; steady and prolonged work is necessary. Extend the neck forcefully. Work downward over the jugulars to secure drainage. Dip finger in cold water and stimulate pharynx. Use cold compresses; flannel cloths wrung from ice water wrapped closely about the neck give instantaneous relief in many cases. The nerves involved are the ninth, tenth and eleventh cranial and the sympathetic. In chronic cases trouble will be found in cervical vertebræ.

In case emesis is desired thrust finger down fauces or use ordinary emetics.

In diphtheria and membranous croup isolation and disinfection are necessary. A disinfecting spray is necessary to the diseased part. Bichloride of mercury 1: 1000 or 2000 is perhaps best. Carbolic 3 per cent solution in 30 per cent alcohol is much used. Boric acid and hydrogen peroxide are also used. Follow usual methods of reducing the fever.

Prognosis. Good if case is taken early.

CURVATURE.

If pronounced, suspect tubercular trouble and seek for history. Examine carefully the condition of the organs of the chest. The heart and lungs may be causes of this condition. Look to the condition of the ribs. Depressed ribs and elevated costal cartilages are often secondary, yet must receive special treatment.

In all cases of curvature except those from lack of osseous development thorough relaxation is required. Extension either on swing or table is the first step. Steady pressure is put on the deep muscles of the spine for thorough relaxation.

In case of imperfect hardening of the bones cereal foods, morning baths and gymnastics, etc., together with extension of spine followed by stimulation will correct the troubles.

ANTERIOR CURVATURE.

In all lesions the theory is to thoroughly relax the part, then increase the dislocation and on movement in opposite direction the tendency is to overcome the luxation. After a thorough extension and relaxation, the patient should be placed on stool; the physician standing behind places knee in back just below the vertebræ which are anterior. Passing his arms below those of the patient he takes hold of the ribs corresponding to vertebræ to be corrected. As the patient takes a deep inhalation, strong traction is made against the ribs, the knee being held firmly in position. Another method is to have patient recline on table—the patient's legs and thighs are flexed and the physician and an assistant stand on either side, the hands are placed beneath the vertebra above the one to be set; using this as a fulcrum, the spine is forced backward by turning the body and legs up towards the head. This is a successful method. This movement is not to be given in many cases. It is successful from sixth dorsal downward. In the upper dorsal region the anterior tendency may

PLATE 17.

Relaxing Muscles of Shoulder. Patient lies on side facing physician. With one hand swing the arm forward and upward. This puts the muscles attached to scapula posteriorly on a stretch. Now press upon the muscles between the vertebral border of the scapula and the spines at the same time moving the arm. By placing the thumb against a depressed rib it may be thrown into place by this movement.



PLATE 17.

be overcome by having the patient thoroughly relaxed on back. Elevate the head and shoulders, bending the upper part of the spine upon the vertebra below the one to be set.

A good method is to have the patient clasp his hands behind his neck; standing behind, pass your arms beneath his, clasp his wrists, force the head forward and sway the body from side to side. This will correct any anterior tendency. Must be used cautiously.

POSTERIOR CURVATURE.

First, seat patient on stool. Standing at the side pass one arm around in front and back to angle of rib corresponding to vertebra involved. Lifting upward with this arm, at the same time sway the body first forward to the limit and then, pressing with the free hand on vertebra to be corrected, throw the body suddenly backward.

A very good method is to have the patient lie on his face *thoroughly relaxed*. The physician gently presses on the transverse processes of the vertebra in succession until the one which is posterior is reached, then in addition to the steady pressure the physician throws sudden weight upon the vertebra and it is slipped into place. A little practice will make one an adept. Care must be used in case of a fragile patient.

Practically the same movements are used in

overcoming a lumbar curvature, varying the movements to suit the changed condition.

LATERAL CURVATURE.

You will find the usual contracture and tendinous condition of the muscles. This contracture may be overcome by repeated application of steady pressure, although it may require some time to accomplish this. At each treatment the patient should be placed on his face and the spine made fixed at the curvature, the body swung from side to side as above indicated. Extension is most valuable. Have the feet fastened, or an assistant may hold them, while you reach under the arms so as to put the force on the spine. The "swing" is a good method of treating curvature. Swinging from a bar by the arms is always to be recommended, as well as gymnastics, physical culture, etc.

In all spinal curvatures in which there has been no extended destruction of bone tissue, these measures will be successful. The time will vary from two to thirty months, according to the severity of the case.

When there is evidence of active tubercular processes little can be expected. In all cases the circulation to the spine can be greatly improved by thorough manipulation along the spine and by the foregoing movements very gently applied.

DEMENTIA.

In dementia the lesion is to be found in the neck or else in the region controlling the genital organs. The causes being so varied and the lesions so widely remote it is impossible to give a definite treatment. A careful examination of the spine, finding the lesion and correcting it will be followed by a recovery. It must be remembered that in many cases no osteopathic lesions can be found. The causes in these cases being idiopathic, little or nothing can be promised.

DIABETES.

Lesion is found from eighth dorsal to second lumbar. Occasionally lower.

Treatment. Correct lesion in this region. Strong inhibition down spine from lower dorsal to sacrum. Even the bladder region, second and third sacral, may profitably be inhibited. Also in the ischio-

PLATE 18.

Setting an Eleventh or Twelfth Rib. The cut shows the position. Patient's legs must be flexed so as to give complete relaxation of the abdominal wall. The quadratus lumborum must be freed from contracture. Place one hand on the rib near its head, the other near the free end, then approximate the ends as the patient takes a deep inhalation. Now turn the rib to its natural position and release it as the patient exhales. Frequently these ribs are turned upward, passing beneath the rib next above. Sometimes adhesions have formed, to break which causes great pain.

Dislocations of these ribs are frequent causes of pain in the side, stitches, uterine and ovarian symptoms. Look carefully to these in case of appendicitis, typhilitis, colitis and similar troubles.



PLATE 18.

rectal fossa. Correction of above named lesions will cure in most cases. Place patient on back, flex leg and thigh, and leaning over patient place hands beneath the dorsal and lumbar spine and spring it forward.

Another method. Patient on side, physician standing in front, flex the legs by putting them against your side or hip and reaching over, place your fingers on side of spinous processes and spring the spine forward. Or have patient sit on stool, stand in front and have patient extend arms across your shoulders. Strongly grasp and press forward the dorsal and lumbar spinal regions, at the same time lifting the shoulders and throwing them backward.

Prognosis. Must be guarded.

Diet. Meat and soup broths, eggs, fresh fish of all kinds, fowls and game, olive oil, fats, butter and gluten bread. Saccharin must be used instead of sugar. Following vegetables may be allowed: Dandelion, horseradish, celery, lettuce and cranberries.

Avoid breads, potatoes and other starches, sweets of all kinds and liver.

DIARRHŒA.

Diarrhœa is controlled by extention of the spine and by springing the spine forward in the lumbar and lower dorsal region. The patient is first extended with force, the shoulders and ankles being the points of traction. He is next laid on his

face and a quiet, steady pressure is applied on either side of the spine from the middle dorsal region to the coccyx. This will occupy about ten minutes. One hand is then placed in the lumbar region of the spine, while the legs are strongly extended backward. This will usually be sufficient in acute cases. An enema of warm water is helpful. Withhold food and curtail the drink for twelve hours.

Prognosis. Good.

Diet. Diet and drinks must be restricted. Boiled milk and arrow root may be given when strength is impaired. Return to the usual diet gradually; oatmeal water, barley water, corn-starch pudding, broths and dry toast are allowable.

DIPHTHERIA.

Treatment same as for membranous croup, which see. Strict isolation is imperative.

DYSENTERY.

A displacement of the vertebræ at third and fourth lumbar is almost invariably found. Correct this at once. Then give strong and continued inhibition over the sacral region. The abdomen should be treated by steady pressure over the solar and inferior mesenteric plexuses. In many cases one or two treatments will suffice. In others

it is necessary to repeat the treatment several times.

Prognosis. Good.

Diet. Same as in diarrhœa, q .v.

DYSPEPSIA.

The lesion is usually found in the region lying between the second and sixth dorsal. Occasionally it may involve the intestines as well as the stomach, in which condition the lesion may be found lower in the dorsal region. Rarely does a lesion in the cervical region affect the stomach—such conditions being coincident rather than causative. There may be an irregularity of the cartilages of any of the ribs overlying the stomach. The gases present may be removed by steady pressure over the stomach—either absorbing them

PLATE 19.

Treatment of the Liver The patient lies on left side with legs flexed. Press firmly over the seventh to ninth ribs inclusive and place the other hand just at margin of the cartilage of those ribs. Have the patient inhale deeply and follow with a forced exhalation. As the breath is forced outward the hand presses deeply beneath the ribs. This stimulates peristalsis of the ducts of the liver and empties the cyst. After this treatment with the hands as in cut, press steady with the hand anteriorly and vibrate the liver by striking the heel of the other hand against the ribs. This will produce a rapid change of blood in the liver and increase its activity. The above treatments may be given with patient lying on back. Follow this with a treatment over the line of the gall duct downward from the point of the ninth rib toward the middle line, about one and one-half inches above the umbilicus. Treat the liver in all intestinal troubles, hæmorrhoids, malaria, rheumatism, headaches, indigestion, neuritis and in most acute diseases.



PLATE 19.

or in many cases forcing them down the intestines—pressure serving to relax the muscular walls. The bowels and kidneys must be kept active. Outdoor exercise is advisable.

Prognosis. Favorable.

Diet. No specific diet can be prescribed but the following are allowable: Cereals, breakfast foods, etc., chicken, turkey, broiled beefsteaks, fish (boiled or broiled), oysters and light vegetables, such as peas and lettuce.

Avoid rich soups, gravies, condiments, pickles, fresh bread, sugars, tea, coffee, tobacco, very acid or very sweet fruits.

DIZZINESS.

The causes may be various. Some of the commoner ones being from the eyes, the stomach, the liver, the kidneys and the circulatory system. Examination will reveal the source of the trouble. In many instances the glasses are at fault. Should it prove to be a vaso-motor disturbance the trouble is usually to be found in the cervical region. To relieve this condition press deeply beneath the clavicle so as to reach the fibers of the cardiac plexus. Throw the head well back, holding strongly with one hand at the junction of occiput and atlas.

Draw the hands firmly downward over the lines of the jugulars. Raise the clavicles. Treat the

various organs affected. Correct the cervical lesions.

Prognosis. Good.

EAR—DEAFNESS.

Always examine with endoscope for perforated membrane and for accumulation of cerumen. Lesion is usually found from second to fourth cervical vertebræ. Sometimes disturbance in the vasomotors as remote as the lower cervical may produce disturbance. Contractures of the scaleni, the sterno-cleido-mastoid, the omo-hyoid or the digastric may produce disease of the ear.

Treatment. Reach the great occipital at the second cervical and at the basi-occiput; the seventh, at its exit from the stylo-mastoid foramen; the ninth and tenth at their exit from the jugular foramen just posterior and inferior to the lobule of the ear. Thorough relaxation of the tissues in this region is very beneficial. In addition, the finger should be inserted in the mouth and the tonsils and the openings of the Eustachian tubes thoroughly stimulated. Cerumen should be removed with oil and soapsuds.

Prognosis. If trouble is catarrhal, favorable; if from other causes, doubtful.

ECZEMA.

If the eruption is local, then it is certain that an interference in the drainage of that region, either

lymphatic or venous, is the exciting cause. The *causa causans* is either a disturbance in the cervical sympathetics or else at the kidney center, interfering with excretion. The atlas and axis are frequently misplaced, particularly in case of eczema of the head and face. The bowels and kidneys should be kept open and the stomach in good condition. By watching the diet carefully it is possible to make this a valuable adjunct to the treatment.

Treatment. Correct any lesions in the cervical region (see cervical vertebræ). Next treat kidneys and bowels thoroughly (see kidneys and bowels). Cleanse the affected parts with a solution of hot boracic acid twice daily.

Prognosis. Most cases can be cured.

Diet. The diet should be wholesome and nourishing. Remember, that more than half the cases are from too much or improper food. Milk, whole-wheat bread, fresh vegetables plainly cooked, chicken and fresh fish; meats very sparingly; oatmeal is often injurious.

Avoid pastry, sweets, sauces, rich soups and heavy vegetables.

PLATE 20.

Stretching the Sciatic Nerve. Patient lies on back. The leg is flexed on thigh and the thigh on abdomen. Then with the thigh still flexed straighten the limb by extending the leg on the thigh. This is a necessary treatment in sciatica or in neuritis of the sciatic nerve. Care is necessary, as the treatment may be quite painful. This treatment should be preceded by a thorough relaxation of the tissues around the sacro-sciatic notch, and by strong internal rotation of the thigh, to relax the pyriformis and gemelli muscles.



PLATE 20.

EMPHYSEMA.

This disease is a sequel of other disturbances and represents changes which have taken place in the lung tissue.

Lesion. In the lung region of the spine or else in the cervical sympathetic. The vagus may be involved. The costal lesions are compensatory and cannot be considered in the light of causes.

For treatment. Correction of the spinal and costal lesions. The liver and heart must be carefully watched as these two organs are closely associated with the general condition of the blood. The only hopes of benefit is through the general vaso-motors and the vagal branches to the bronchial tubes, the vaso-motors to the lungs.

Prognosis. Little can be done; there is no hope of curing cases of long standing.

 ENDOCARDITIS.

In *acute* cases rest and nourishing diet are the first essentials.

Lesion. Tenderness will be found in the dorsal region from the third to the sixth, usually at the fourth and fifth.

Treatment. Treat by strong inhibition anteriorly at fifth and sixth cervical, also at head of first rib and annulus of Vieussens. Raise the ribs gently but strongly.

In *chronic* cases the ribs should be raised on left side. In many cases there is a displacement of the

first rib upward, interfering with the inferior cervical ganglion. The fifth rib is usually displaced downward and correction of this lesion will be followed by marked improvement. In case there is mitral incompetency, the condition of the lower ribs and the diaphragm must be examined carefully. The diaphragm may by traction on the aorta occlude its lumen.

Prognosis. Treatment is helpful.

Diet. (See heart troubles.)

ENTERALGIA (TORMINA, GRIPES).

The lesion may be found anywhere in the dorsal or lumbar vertebra, usually in lower dorsal and upper lumbar. Some error in diet is usually the exciting cause; this should be carefully guarded until the recovery is complete.

Treatment. Control by steady pressure in the splanchnic region. Relaxation by steady pressure in the lumbar region is helpful. The knee in the dorso-lumbar region, the spine being thrown backward, is usually sufficient to quiet the peristalsis. Steady pressure over the solar and mesenteric plexuses corrects flatulency and quiets peristalsis. Hot fomentations applied to abdomen or a hot bath will relieve the pain. The liver should be treated to throw the bile into the intestines to prevent decomposition. Impaction, etc., must be relieved.

Prognosis. Cure is almost certain and permanent.

ENTERITIS.

Lesion. Usually found at second to fourth lumbar.

Treatment. Correct lesion. Spring the spine forward and give strong inhibition at the lower dorsal and lumbar region. Use irrigation for the large intestines; cool or cold water. Rest in bed, and a proper diet in connection with treatment three to five times daily, will effect a cure.

Prognosis. Good.

Diet. Broths, egg albumen and beef juice are the proper food.

Avoid over feeding.

EPILEPSY.

Lesion. Lesions are as various as the causes. Most osteopathic cases show marked lesions in the cervical regions, but this is not always the case. Occasionally a single lesion in the dorsal region is

PLATE 21.

Pressure on the Fifth Nerve. The plate shows five points at which pressure may be applied to the fifth nerve. They are at the mental foramen, below the malar bone, just in front of the tragus of the ear and slightly above it, at the inner canthus of the eye and at the supra-orbital foramen. Gentle manipulation around these points will be effective in quieting a nervous headache, neuralgia, and similar conditions. In case of chronic catarrh, coryza, etc., these points are very important.



PLATE 21.

the entire cause. Rarely it is a reflex from uterine disturbances, phimosis, or masturbation, in which cases there will be secondary lesions in the lumbar region. In case no lesion is apparent and the case is of long standing, there is little hope for success.

Treatment. The treatment will vary with the lesions, but the neck must always be carefully treated for the circulation to the brain. The spine must be thoroughly relaxed and the irritation to the nervous system released. A healthful attitude of mind on the part of the patient is essential as is outdoor exercise.

Prognosis. Unfavorable; several months are required to accomplish anything.

Diet. Nourishing diet; meat sparingly.

ERYSIPELAS.

Few cases have been treated osteopathically, but those have been with uniform success.

Lesion. The lesion is usually found in the cervical region, either in the vertebræ themselves or the muscles.

Treatment. Restlessness is overcome by sponging in cool or tepid water and by thorough manipulation down the spine. Thorough drainage must be secured, and treatment of the lesions usually found in the cervical region, or as low as the fourth dorsal, is effective.

Avoid local treatments and confinement cases while attending erysipelas. Cold water is perhaps the best application.

Prognosis. Good.

Diet. Food in small quantities, an ounce every hour; pancreatinized milk, beef juice, egg-nog and gruel.

EPISTAXIS.

Stimulate the superior cervical ganglion. Steady pressure at inner canthus of eye. Thorough relaxation of the muscles over jugulars is indicated. Raise arms over head. Compress the facial artery at angle of inferior maxillary. Ice may be applied at basi-occiput. In extreme cases the anterior and posterior nares may be plugged.

Prognosis. Good.

EXOPHTHALMIC GOITRE.

Three symptoms—exophthalmus, enlargement of the thyroid gland and a rapid and peculiar heart beat—are usually present, but only two of the three may be. Occasionally complications may occur.

Lesion. In cervical vertebra usually the fifth or sixth, lateral; at the last cervical vertebra; or the upward dislocation of the first rib; also the fifth rib on the left side may be involved.

Vaso-motor fibers may come from the third dorsal nerve to the thyroid; hence the lesion producing vaso-motor change in the gland may be from

this region. The eye should be gently manipulated and a relaxing treatment over the line of the internal carotid artery is suggested. The region just below the ear is very important. Keep the upper ribs raised and the upper dorsal spine thoroughly relaxed.

Prognosis. Thirty-three per cent cured; majority helped.

THE EYE.

It is not in the province of this work to give the minute details of this treatment in various troubles which affect the eye.

Lesion. The lesion is usually in the upper cervical region; either the first, second, third or fourth. There is a prevalent idea that the atlas is dislocated in all eye troubles. While this is true in some cases, yet not always do you find it so. Lesions

PLATE 22.

Treatment of Ninth, Tenth and Eleventh Nerves. These three make their exit through the jugular foramen and are intimately associated with the carotid artery and the jugular vein. The ninth nerve is of first importance in affections of the tonsils, pharynx, Eustachian tubes, and middle ear. The tenth nerve is both sensory and motor to the larynx; is vaso-motor to the lungs, and is motor to the stomach and intestines, as well as inhibitory to the heart.

The seventh nerve may be reached below the lobule of the ear, as it divides, just before reaching the ramus of the jaw. The following muscles may be reached and relaxed at this point: the sterno-mastoid, the scaleni, the stylo-hyoid, the digastric, the levator anguli scapulæ, splenius and trachelo-mastoid. The importance of thoroughly relaxing these parts and of restoring the normal condition to this region in all diseases affecting the head and throat, will be seen. Here lie the vaso-motors to the whole region as well as the sensory and motor nerves to the larynx and throat.



PLATE 22.

are also found at the first rib and the second and third dorsal vertebræ and even as low as the fifth.

Treatment. Find and correct the lesions. Additional treatment to the eyeball should be given by laying the tips of the fingers lightly on the closed lids, tapping these lightly and rapidly with the fingers of the other hand. By placing the thumb and forefinger, one at either canthus, the eye may be compressed. By gently working as far back of the eyeball as is possible, both above and below and laterally, the muscles of the eye may be reached and relieved. The fifth nerve at its various points of exit,—on the eyelids, at inner canthus, at supra-orbital notch, and infra-orbital foramen, should be treated chiefly by inhibition. The inferior maxillary branch may be reached below the tempero-maxillary articulation. If the circulation or drainage of the eye is interfered with, the application of hot and cold water alternately is recommended.

Prognosis. Very favorable in most troubles.

FEVER, (PYREXIA.)

The general treatment for pyrexia is as follows: The muscles of the spine are thoroughly relaxed, giving particular attention to the splanchnic region. The ribs over the heart, third to sixth, are raised and the muscles of the neck are thoroughly relaxed. Steady pressure is now put upon the sub-occipital

region, the hand covering the segment from the occiput to the fifth cervical vertebra. This diminishes the impulses sent in from the cervical nerves to the thermogenic center in the corpus striatum; next place the thumb and finger against the atlas, holding the vertebral arteries, and strongly bend the head backwards. This should be continued for some five or six minutes. Press deeply and steadily downward at the head of the first rib; you here reach the augmentor fibres to the heart.

Next, put steady pressure on abdomen over the solar and inferior mesenteric plexuses. These steps carefully and quietly taken will usually reduce the rapidity of the heart beat, and after a half hour will reduce the temperature. Sometimes it is necessary to repeat the treatment within two or three hours. Do not allow the patient to take his temperature or pulse. A cool sponge bath or a dip into cool water is a very safe method of controlling temperature.

Prognosis. Good.

Diet. Nutritious foods. Milk, eggs, etc.

FEVER, SCARLET.

There is no disease in which more varied complications may occur than in scarlet fever, and for this reason the utmost vigilance is required on the part of the physician. The ear and the kidneys

are the organs most likely to be affected. The temperature is to be controlled as in any other fever, by holding the sub-occipital region and by inhibition at the annulus of Vieussens. A gentle manipulation of the abdomen with steady pressure on the abdominal plexuses will aid in equalizing the circulation and in reducing the temperature. The muscles of the entire spinal region must be relaxed, particular attention being given to the upper dorsal and cervical groups. This relieves the hyperæmia of the nerve centers and restores normal heart action, heat production and dissemination. By careful manipulation, securing efficient drainage of the neck, the inflammation of the cervical lymphatic glands, so apt to follow cases in which the pharyngeal symptoms were severe, can be controlled or prevented.

Should arthritis occur, gentle manipulation producing drainage is required. In case the fever become high, use the sponge bath, and if delirium,

PLATE 23.

Stimulating the Liver. This plate shows position of hands in treatment to stimulate the liver to action. The patient breathes deeply and as he exhales the hands are pressed upward beneath the line of the cartilage on the right side. This will arouse the muscle fibres in the cyst and ducts to action and increase the flow of bile. This position is used also in treating stomach and intestinal troubles through the solar plexus. This may be reached in the middle line between the umbilicus and the ensiform appendix, much closer to the former. Deep and steady pressure here will relieve high blood pressure and induce a flow of blood to the mesenteries, aiding digestion and in some cases relieving headache when other treatments fail.



PLATE 23.

the cold pack or the cold bath should be used. A cold compress around the neck will relieve the throat symptoms. Should heart action become poor, stimulation of the inferior cervical ganglion and separating the ribs will be successful. If the care has been thorough there is little danger of any of the complications.

Diet. Milk, a small amount of vanilla ice cream, lemonade and barley water; but milk should form the basis.

Isolation and disinfection must be rigidly enforced.

GASTRITIS.

This, like gastric ulcer, gastralgia, gastrodynia and related troubles, presents no lesions differing from those of dyspepsia. The diet is of much importance but the chief reliance must be in correcting the lesions which occur either in the vertebræ or the ribs in the region of the third to sixth, or sometimes the seventh or eighth. In gastrodynia and gastralgia the trouble is frequently found to be a dislocated or turned rib. For specific lesions and treatment, see dyspepsia, page 86.

GOITRE

Lesion will be found in the cervical, or the upper dorsal region. The clavicle is most frequently depressed. The first or second ribs are elevated. Thoroughly relax the muscles of the neck, and cor-

rect the lesions in the cervical vertebræ; gently manipulate the gland itself, following the direction of its drainage. Treatment similar to that of exophthalmic goitre is indicated.

HÆMATEMESIS.

Correct any lesion in the splanchnic region. Keep the head low and the patient quiet. Inhibition of the vagi will quiet the peristalsis. Hot foot bath or dry heat applied to feet, with an ice bag over abdomen is valuable.

HÆMATURIA.

Lesion is in region of eleventh dorsal to first lumbar. Correct this and thoroughly inhibit in the lumbar and sacral regions. If hemorrhage is from bladder the trouble is at second to fifth lumbar. Ice bags should be applied to loins.

Prognosis. Favorable.

HÆMOPTYSIS.

This is usually an indication of tuberculosis. It may be the result of other conditions, as menstrual disorders, cardiac troubles, etc.

To stop the hemorrhage is in many cases impossible. In case it is not too rapid, it may be checked by having patient lie in bed. Stimulation of the pneumogastric nerve will reduce blood pressure in the pulmonary system by acting on the pressor

nerves to the bronchial vessels and by decreasing the rapidity and strength of the heart-beat. Cracked ice held in the mouth is beneficial.

Prognosis. Uncertain.

HÆMORRHOIDS—PILES.

Constipation is a frequent complication, and when such is the case the cure of this condition will usually overcome the hæmorrhoids. Examine the coccyx, as this is frequently a source of trouble; a slipped innominate, or a lumbar lesion, is often a cause. A congested liver causing stasis in the portal circulation is oftentimes a cause of poor drainage through the superior hæmorrhoidal vein; therefore pay especial attention to the liver. Treat the pudic nerve, and especially relax structures in the

PLATE 24.

Correcting a Cervical Lateral Sub-dislocation. Patient lies on back. The slip is carefully and accurately located. The muscles and ligaments of the neck must be thoroughly relaxed by a series of treatments. The head is then strongly bent *from* the side toward which the slip has occurred. Now with finger tips of the hand on the opposite side, press steadily against the transverse process of the two vertebræ next below, if possible. This relaxes the ligaments on the opposite side and draws taut those on the side of the slip. While the head is thus strongly flexed it is slowly rotated until the tension becomes pronounced. Now a sudden turn of perhaps one or two degrees will slip it back into place. This treatment may have to be repeated several times in cases of long standing. In chronic headaches, neuralgias, vaso-motor disturbances, eye and ear troubles, this treatment is frequently a very effective remedy. Great care is necessary as there is a limit to the force which may be employed.



PLATE 24.

ischio-rectal region. Stimulation of the ganglion impar is helpful to the drainage.

Prognosis. Usually one to three months' treatment will effect a cure.

Diet. Such as would prevent constipation or diarrhœa.

HAY FEVER.

Lesion in cervical region interfering with nutrition to the mucous membrane of the nasal passages.

Treatment at the points of emergence of the fifth nerve and over the surface of the nose will give relief.

Steady pressure with the fingers over the frontal sinuses and over the sinuses of the superior maxillary and ethmoidal bones, and on the sides of the nose will also relieve the symptoms. Relaxing the muscles at the occiput, and correcting the lesion in the cervical region will make the cure permanent. Treating the pharyngeal plexus and the palatine nerves at the tonsils and over the hard palate helps the condition. Meckel's ganglion also sends branches to the nasal fossa, which are both vaso-motor and trophic.

Out-door exercise, gymnastics, baths, etc., are adjuvants.

Prognosis. Favorable.

HEADACHE.

In constant or periodic headache, lesion may be found either in cervical, upper dorsal or

in lumbar regions. It may be associated as a result with various conditions. To make the cure permanent these conditions must be corrected. The usual treatment is to thoroughly relax the tissues of the neck and of the upper dorsal region. Raise the clavicles, secure free drainage for the brain through the jugular veins by working downward from jugular foramina with thumbs following line of veins. Quiet the heart-beat by steady pressure on the annulus. Steady pressure over the points of emergence of the fifth nerve will often stop the pain anteriorly, while pressure on the sub- and great occipital nerves will stop a posterior pain. Firmly holding the sub-occipital region and throwing the head backward will stop the flow from the vertebral arteries and at the same time facilitate drainage. Press gently on solar plexus; give thorough relaxation in the splanchnic region.

Prognosis. Good.

HEMICRANIA—SICK HEADACHE—MIGRAINE.

Reduce the heart action by freeing the ribs on the left side and holding the inferior cervical ganglia. Should there be nausea, it is relieved by elevating and separating the third to fifth rib on the right side. Look for cervical lesions as well as in other regions. The treatment is similar to that for headache, q. v.

HEMIPLEGIA.

The cause may be either cerebral or spinal. The circulation to the nerve centers must be maintained by relaxing the muscles in the entire spinal region from occiput to coccyx. In the spinal type of hemiplegia the lesion is found to be a slipped vertebra.

There will be marked muscular and usually osseous lesions in the cervical region in cerebral cases. The treatment is correction, but it is more. The strongest extension must be used. Every muscle must be kneaded, every nerve traced and stimulated. All articulations, even to the phalangeal must be flexed and extended at each treatment. Experience shows the corrective spinal treatment should be given three times each week. The muscular, nerve and articular manipulations should be given daily.

Keep the bowels, kidneys and the heart in good condition.

Prognosis. Improvement marked and permanent. A complete cure is rare.

Diet.

PLATE 25.

Inhibiting the Abdominal Plexus. The plate shows the position of the hands for pressure upon the solar and hypogastric plexuses. These are the nervous pathway for most of the impulses reaching the abdominal and pelvic viscera. In case of tenderness, inflammation or congestion of any of these organs, steady pressure at one or both these points is indicated. A gentle rotary motion of the hands will remove venous blood and free the parts from tenderness. This treatment is indicated in peritonitis, diarrhoea, flux and in acute pelvic disorders. It will frequently remove gases from the bowels in flatulency.



PLATE 25.

HICCOUGH.

Inhibit the phrenic nerve over the third, fourth and fifth cervical. If severe, treat splanchnic area. Often associated with other diseases, affecting the nervous system. Direct treatment to diaphragm is indicated.

HIVES—URTICARIA.

Lesion may be remote. This is a reflex from various causes, such as intestinal, gastric, uterine, ovarian, renal or nervous troubles. The whole spine must be examined and patient questioned for other symptoms. Irregularities in diet must be corrected. Give a general treatment to equalize the circulation and treat the special conditions according to requirements.

HERPES.

Occurring along the distribution of a certain nerve, it clearly has a local cause. We treat it as due to a neurosis of the nerve caused by a failure of the veins and capillaries to drain the region. Seek for the impediment—usually a contracted muscle. A few local treatments daily along the course of the nerve is effectual.

HYPERÆMIA—OF ANY ORGAN.

Find the local vaso-constrictor nerves of the organ. Stimulate them by the method of alternate

or varying pressures. This will reduce capillary pressure. Next, see that the tissues of the organ are relaxed; third, secure drainage by relaxing all structures lying on or near the veins which drain the organ; fourth, reduce the pressure generally by an inhibitory treatment in heart centers, third to fifth dorsal and at the annulus of Vieussens.

HIP—DISLOCATION OF. (FEMUR.)

Though the strongest of the freely movable articulations, the hip is frequently partially or completely dislocated. If the hip is completely out, the gait will usually indicate the condition.

The Osteopath must bear in mind the fact that even partial or complete dislocation may be the result of tubercular processes. *Motion in such cases is a positive injury*, though treatment may be effective if directed toward the blood and nerve supply. In dislocation the ilio-femoral ligament, the most resistant portion of the capsular, determines largely the position of the hip.

To detect dislocation the patient should be lying straight, face upward; place the thumbs on the anterior superior spines of the ilia. A comparison of the two sides is usually the surest way of determining relative positions of the parts. Nelaton's line is useful. It is a line from the anterior superior spine to the tuberosity ischii. On this line lies the center of the acetabulum and at the

same level as the trochanter major. The femur may be dislocated in any direction; backward, either above the dorsum ilii, or below the obturator internus muscle into the sacro-sciatic notch, or it may be anterior on the pubes or inferior into the obturator or thyroid foramen.

The effect of the dislocation may be manifest in the gait, muscular condition of the limb, pain at hip or at knee, and in the condition of the blood vessels of the limb; these various tissues may be affected in various ways. Venous stasis, neuritis and muscular atrophy are very common sequelæ of femoral dislocation.

To set a dislocated femur, have the patient lie on his side on a low table or couch with his dislocated hip upward. Flex both legs. With one arm clasp his leg at knee and with the other hand on the trochanter the hip may be turned into place. Patient may sit on stool and the physician sits on the knee of sound limb. Now take hold of ankle and trochanter, as above, and turn into place. Either of

PLATE 26.

Setting an Atlas. The neck must be thoroughly relaxed. The thumbs rest on the transverse process of the atlas, just back of the angle of the jaw, the fingers resting on the occiput. The head is then forced backward strongly by pressure exerted on the side of the head with the palms. Now the motion is just reversed and the head flexed as far forward as possible, the corrective pressure being put on the atlas at this time. In case one side is more anterior than the other, the pressure must be regulated to suit the condition. Do not try this movement more than once each treatment as irritation may be produced. In case the atlas is lateral it may be set by the method shown in Plate 24, q. v.



PLATE 26.

these positions relaxes the tissues and makes the work much easier.

HYSTERIA.

Find if possible the cause. Local examinations for pelvic troubles may be necessary. In many cases the cause seems to be a reflex, the deep muscles of the back being contracted. In such a case a strong extension followed by quieting treatment along the spine is indicated. A turned rib may be the *causa causans*. Avoid all stimulants. Use nourishing and easily digested food. Be master of your patient. Suggestion is, in such cases, a most valuable aid. A gentle downward stroking of the spine will produce sleep.

A cool bath each morning aids the circulation; the rest cure is some times productive of good. At other times a shock or a scolding will produce a change.

Pressure in the sub-occipital region or on the ganglia of the cervical sympathetic will stop the muscular spasms. No two cases can be treated alike.

ICTERUS—JAUNDICE.

This is a symptom of many diseases. The one constant condition is obstruction of the biliary ducts.

Treatment. Vibrate the liver, the patient lying

on left side or on back. Press upward beneath seventh to tenth cartilages on right side. Knead the bowels. Open bowels thoroughly; relax the muscles in lower dorsal region. Careful examination will reveal lesion in the dorsal region eighth to tenth. Not infrequently a rib is pressing upon the liver. Readily yields to the treatment. Give light diet and abundance of water.

ILIUM-DISLOCATION OF.

The pelvis may be considered as formed of three bones, viz., the sacrum and the two innominates. Of course the sacrum articulates with the last lumbar vertebra above and the coccyx below, but these may be treated as vertebral articulations.

This will then give us three points for dislocations—at the sacro-iliac synchondroses and at the pubic symphysis.

Causes may be varied. The most common are sudden jars, strains in rowing or lifting, falls, and childbirth.

The condition may be that of both innominates tipped either forward or backward, giving the patient a peculiar gait, halting step and a constant fear of falling; or one innominate may be slipped either upward or downward, the other remaining in its true position. In this case there will be a marked slip at the symphysis pubis accompanied by exalted sensitiveness.

These conditions affect the cutaneous sensations and muscular condition of lower limbs. They are also accompanied by neuritis, rheumatism, sciatica and circulatory disturbances. They frequently produce a direct effect on the condition of all the pelvic organs, including the rectum and its sphincters.

To correct a forward innominate, the iliac crest and the tuberosity ischii offer points for obtaining leverage, the patient lying on his side. Force, by a rotary motion, the crest backward and the tuberosity forward and the work is done. The reverse motion will replace a backward slip of the innominate; or, it may be done as in plate 27.

Should both innominates be tipped backward, they may be corrected by placing the patient on his face, placing solid yet soft padding beneath the pelvis so as to support the lumbo-sacral portion of the spine. Now place one hand on the sacrum and with the other arm draw upon the thighs so as to straighten the body and at the same time stretch the lower spinal region. A series of treatments of this kind will correct the condition and relieve the various symptoms mentioned.

PLATE 27.

Setting a Sacro-Iliac Slip. As shown in plate, the ilium is slipped backward. The patient must be prepared by a few treatments to produce thorough relaxation. He then lies face downward on table. The physician presses with the heel of the hand on sacrum, and opposite ilium, while with the other hand he forces the leg on the side of the slipped ilium backward as shown. When the limit of backward extension is reached, then a sudden, strong, yet limited pressure produces the correction desired.



PLATE 27.

INCONTINENCE OF URINE.

Examine for preputial adhesions or for irritation to the clitoris. In many cases relieving the trouble at these points is all that is necessary. The spinal lesion is found in the second to fourth lumbar, and irritation in the sacral region.

Treatment. Place the patient face downward. Put one hand in upper lumbar region and with the other make strong traction of legs. Then place the hand firmly on third lumbar vertebra and move the legs from side to side bending the body at the middle lumbar region. Then lay patient on side facing you. Flex the legs and place them against your body reaching over with one hand and pressing against the vertebra that is affected. Now, again place the patient on face and beginning at lower dorsal region press strongly upward and outward opposite each spine successively till you have reached the coccyx. A complete cure will result.

INFANTILE PARALYSIS.

The osteopath is usually called to these cases several years after the condition first came on. Much can be done to restore use to the limb, yet the progress must be slow. Lesion is usually in the cervical or lumbar region, though it may be at any point. Thorough spinal extension is always indicated. Manipulation of the nerves to the paralyzed member is necessary.

Prognosis. Complete recovery is rare. No promise can be made as to time. Little can be expected in less than six months, while two or three years may be required in some instances.

INFLUENZA—LA GRIPPE, GRIPPE.

Put patient to bed. Strong and steady treatment along the spine from occiput to sacrum. The fever must be controlled by holding the suboccipital region and by steady pressure at the inferior cervical ganglion. Use a sponge bath. Relieve the headache by gently treating the fifth nerve, pressing steadily one hand on occiput and one on forehead; also press the temples between the palms, etc. A hot lemonade and a good sweat must be given. Do not allow patient to get up too soon. Use little food. Treat two or three times per day. Of hundreds of cases of La Grippe treated osteopathically, scarcely a case has had a bad sequela.

INSANITY.

In many cases a definite spinal lesion will be found, usually in the cervical region. In some cases where there seems to be only deep contractions, the relaxation from the treatment relieves nervous irritation and effects a cure. In others the treatment is ineffective. The causes may be various.

Prognosis. Will depend on the case and the

result of the examination. As a usual thing it is not favorable.

INSOMNIA.

In this condition there is usually a marked contraction of the muscles in the cervical and upper dorsal region. In females it may be from pelvic diseases. Relaxation is the key to the cure. There will usually be found one or more osseous lesions in the upper spinal segments. Correction of these, accompanied by a thorough inhibition along the spine will be effective. Have patient cultivate deep breathing and holding breath as long as possible. Outdoor exercise, light diet, sleeping in room alone and gymnastics will aid in the cure. Warm water drunk freely, or a glass of hot milk, at bed time, will produce good effects. Setting every muscle in the body with a forcible contraction will be followed by complete relaxation and sleep.

PLATE 28.

To Correct an Anter or Upper Dorsal. Patient sits on stool with hands locked. The physician stands behind and passing his arms beneath those of the patient, clasps the wrists of the latter. Now drawing the patient back against his knee, which must be against the vertebra next below the one to be set, the physician pulls downward first with one hand then with the other. This throws great tension on the vertebral ligaments at the point where the knee supports the spine. A few treatments of this kind will make a marked difference in the position of the vertebra as the ligamentous tension slips it gradually into its proper place. Heart, stomach, lungs or vaso-motors may be affected by an anterior vertebra.



PLATE 28.

Prognosis. Good. These means will always cure if persisted in.

KIDNEY.

To treat the kidney, the patient is placed on his side facing the physician. The lumbar spine may be relaxed by placing one hand on crest of ilium and the other on thoracic wall or shoulder and giving a bias stretch, pulling forward on ilium and backward on ribs, and *vice versa*. Then reaching below the patient lift the body clear of table, the hand being beneath the lumbar vertebra. This will relax the quadratus lumborum muscle and also move the abdominal viscera, releasing pressure from the kidney, its veins and lymphatics. The patient is now placed on his back, his legs and thighs flexed. Place the hand beneath the dorso-lumbar region, palms up, passing one arm over the patient. Now elevate the patient on finger tips. Manipulate the patient over the kidneys anteriorly.

Flex the legs and then separate the knees, the patient both passive and also resistant. Rotate the leg outward as far as possible to put traction on the psoas muscle. The lesion is usually found at the eleventh dorsal to the second lumbar. This must be corrected according to its nature. The genu-pectoral position affords a convenient position for taking pressure from kidney structures.

Diet. Varies according to nature of the disease.

In nephritis avoid nitrogenous foods and use abundance of broths, skim milk and water.

KYPHOSIS.

The lesion is evident. If there is tubercular process use care in movements.

Treatment. Thoroughly relax muscles along spine by pressure upward and outward. Next thoroughly extend patient by stretching on the table, or seat patient on a stool and stand in front of him, his hands clasped back of his head; then pass arms beneath his and draw his upper spine upward and forward. This will relax and at the same time correct the spine. Another method is to have patient lie on his face and after thoroughly relaxing him throw the posterior vertebra forward by putting pressure upon them suddenly.

Another method; patient sits on stool, stand at his side, reach around in front with one hand lifting up, and with the other hand press the vertebra forward.

LARYNGITIS.

Lesion in cervical vertebra causing disturbance to sympathetic nerve of larynx and pharynx. Acute cases are often due to contraction of the muscles of this part of the neck, the sterno-cleido-mastoid, the scaleni, the infra-hyoid and the supra-hyoid groups of muscles.

Treatment. Relax by thorough manipulation the muscles of this region. Gently work over the tonsils. Treat internally by wetting the finger in cold water and pressing it over the hard palate. The ninth, tenth and eleventh nerves may be reached just below the lobule of the ear. This region must be treated thoroughly. Acute cases may be treated twice per day. Chronic cases daily or every alternate day. A cold compress will aid the treatment.

LEUKEMIA.

General relaxed condition of the spine. Look for lesions in the middle to lower dorsal region. Tenderness along the line of the ninth and tenth ribs. These ribs are sometimes turned.

Treat the liver and spleen. Give general stimulating treatment to the heart. Knead the abdomen. Treat the splanchnic nerves. Pay close attention to the ribs from eighth to tenth. The

PLATE 29.

Relaxing Structures Around the Saphenous Opening. The plate shows position, though both knees should be flexed (one being down to show position).

This relaxes Poupart's ligament and the femoral and pubic portions of the fascia which constitute this opening. Pressure (as shown by thumb) with a steady rotary motion will relax these structures. At or near this point are reached: the saphenous, femoral and some superficial veins; the femoral artery, the anterior crural, genito-crural branch of the ilio-inguinal and a cutaneous branch of the obturator nerve.

This point is important in any affection of leg, knee or ankle, varicose veins, cold feet and related conditions.



PLATE 29.

daily morning bath, outdoor exercise and a nourishing diet are aids.

LITHÆMIA.

The liver is often at fault, therefore the lesion is in region of eight dorsal. Treat the splanchnics. The kidneys must be treated. Look carefully to diet. Amount of meat should be small. Raw apples and acid fruits of various kinds are tolerated, but sweet fruits, starches, etc., are to be avoided.

LIVER—TREATMENT OF.

This is a most important gland and should be treated in many diseases. The center is in the splanchnics, seventh to tenth dorsal.

Treatment. First, relax in splanchnic region. Second, have patient sit; standing behind him, reach around in front and as he expels air after a deep inspiration, lift the abdominal wall and press up beneath the eighth, ninth and tenth ribs. Third, have patient lie on his back and thoroughly knead the liver. Press inward and upward at a point two and a half inches above and to the right of the umbilicus. Fourth, have patient lie on left side, and standing at his back reach over and press upward on abdomen, just above umbilicus; then with the other hand vibrate forcibly the wall of abdomen lying over the liver. This changes the blood in the liver and increases its activities.

Gymnastics, outdoor exercise and plenty of water, three to six pints daily, must be supplementary to the treatment.

Diet. In all liver troubles alcohols and liquors are forbidden. Avoid pork, fried foods, salt foods, sugars, starches and oils. Only fresh food should be given and in reduced quantity; fish, oysters, sweetbread, lean meat, eggs, milk, buttermilk, green vegetables, dry toast and fresh fruit are allowable. Do not drink at meals. Rest an hour before and after eating.

LIVER SPOTS.

Treatment is for the circulation and drainage to the particular region and to the liver.

LORDOSIS.

Lesion usually found in the lumbar region; occasionally in the dorsal region.

Treatment. Relax muscles on either side. In all cases a strong extension. In dorsal region, seat patient on stool, stand behind and lift up ribs and push them backward by grasping them at the sternal ends and pulling backwards. The patient may be placed on side and bent forward, at the same time holding the spine from above and below so as to put the tension at the location of the anterior condition. Place the patient on his back and flex legs and thighs. Place one hand under the vertebra above those to be moved; now come

down with some force on the legs. If this anterior condition is in the upper dorsal region the same movement may be made with the neck and shoulders.

LUMBAGO.

Examine kidneys. Lesion in the lumbar vertebræ or at the dorso-lumbar or the lumbo-sacral articulations. Sometimes in dorsal region. Look carefully for dislocations of the eleventh and twelfth ribs.

Treatment. Nothing better than stretching the spine at this point. Correct the lesion. Flex the thighs on abdomen, or, if patient is on face, legs are vibrated from side to side. Any movement may be beneficial. Do not neglect the bias stretch. (q. v.)

LUNGS—TREATMENT OF.

The one object in all treatment is to secure a return to normal conditions. Good lung circula-

PLATE 30.

Correcting a Lateral Dorsal Vertebra. After thorough preparatory treatment the patient lies on side as shown. The physician now places thumb against side of spinous process and pressing downward (toward sacrum), with the heel of that hand he pulls upward (toward head), with the other at the same time bending the spine by elevating the shoulder. This is a successful method. Equally good is the method of having patient sit on stool—process same as here.

Patient may be suspended in a "swing" free shoulders and the vertebra slipped into place.



PLATE 30.

tion and regular deep breathing will cure any incipient pulmonary trouble.

Lesion. In dorsal region from second to sixth, usually a forward condition. Also any one of the six upper ribs may be at fault. Examine carefully at both spinal and sternal ends.

Treatment. First, lay patient on side and thoroughly manipulate interscapular region. Second, lay patient on table, stand at patient's head and placing one hand beneath the angle of the ribs take hold of arm with the other and draw it upward, downward, and then back to its position. Now move the hand to the next rib and repeat. Do this for both sides. An assistant is valuable here as both sides can be manipulated at the same time. Third, patient lies on back; stand at his head, draw arms above his head; the patient inhales deeply; after holding breath as long as possible force the arms back to their normal position. Fourth, patient sits on stool and arm is pulled upward and backward. Fifth, patient lies on back. Separate the ribs and release the intercostal nerves by putting fingers between ribs near articulation and spreading them.

MEASLES.

Avoid exposure to cold. No osseous lesions. A secondary lesion in cervical and upper dorsal region. Relax these muscles thoroughly. Should

the eruption be imperfect, a thorough stimulation in the upper dorsal region will produce it as well as sponging in tepid water; also hot drinks. Protect the eyes from light. Keep room cool and well ventilated and patient indoors; preferably in bed. Watch the bronchial tubes. Treat in the first to third dorsal and over the second and third ribs anteriorly. General treatment along the spine with special treatment for the fever will be all that is necessary in worst cases.

MELANCHOLIA.

Treatment same as hysteria. Change of surroundings and occupation is also helpful.

MIGRAINE.

Lesion may be in any part of spine producing the condition as a reflex from eye, stomach, hepatic, intestinal or uterine disturbances. No specific treatment can be prescribed. Correct these conditions. To effect a cure a thorough course of treatment is necessary.

Do not expect to be successful in all cases during paroxysms of pain. The treatment must be given regularly. During paroxysm give the regular headache treatment.

MUMPS.

The lesion is reflex, a contraction in cervical and upper dorsal regions. Keep patient warm and

quiet. Good ventilation; avoid colds. Relax cervical regions and especially relieve by gentle manipulation the swollen glands. Care for eyes and ears and the reproductive organs. Keep temperature down by usual fever treatment and do not permit patient to exert himself too soon.

MUSCULAR RHEUMATISM—MYALGIA.

Lesion usually in the lower dorsal region, embracing the liver and kidney region; these organs are usually at fault.

Treatment. Treat the liver and kidneys according to directions given under head of those organs. Treat the upper dorsal and cervical regions for affections in the arms, and the lumbar and sacral regions for the legs. Relax the muscles and follow the nerves from their exit to the part affected, putting steady pressure on them. Thoroughly relax the spinal musculature. Treat gently once or twice per day. Hot fomentations often give relief.

PLATE 31.

Stretching the Piriformis Muscle. The plate shows the process. By giving a strong external rotation to the thigh and at the same time putting deep and strong pressure upon the piriformis muscle it relieves it from tension and thus directly affects the rectum, sacral plexus, the internal iliac vessels, the sciatic nerve and the internal pudic vessels and nerve.

The importance of freeing this muscle from contraction cannot be too strongly emphasized in all troubles to the lower limb. It is also related to the condition of the genital organs, though not so directly.



PLATE 31.

Diet. Cereals, broths and light meats. Avoid meats in excess, sugars and starches. Drink hot water in abundance.

MYOCARDITIS.

Lesion in upper dorsal region and in ribs.

Treatment. Separate and set the ribs. Treat the vaso-motors to lungs and heart. Relax all contractures in upper dorsal region. Outdoor air and exercise are helpful. Diet, light and strengthening.

NEPHRITIS.

Lesion in the lower dorsal and upper lumbar. Correct this. (See kidneys.) Watch the urine very carefully.

Diet. Avoid all proteids, meats, heavy foods, etc. Meals should be light and consist chiefly of milk, buttermilk, gruel, broths. Should symptoms abate, eggs, meat-broths, etc., may be allowed. Diet is of utmost importance.

NEURALGIA.

Find the nerve affected and release the pressure, removing the irritation. To do this, usually it is only necessary to trace the affected nerve to the spine and release it near its exit.

Intercostal type. Either raise the rib or set the vertebra which is causing the trouble.

Cardiac type. Usually the trouble is in the third, fourth or fifth rib. Raise and separate these and

put steady pressure at their angles or near spine. Hot fomentations are useful.

Gastric Type. Trouble is usually in the intercostal nerves. Sometimes it is reflex from uterine troubles. Look for lesion in sixth to eighth ribs; sometimes it is higher and with the vertebræ. Steady pressure is always able to give relief. It is often difficult to restrain patient from taking morphine, but if the treatment is persisted in relief will follow. Corrective treatment must be administered between the attacks.

Facial Neuralgia. Frequently due to decayed teeth; also, often from dislocated axis or atlas. Treat the various terminal branches of the fifth nerve. Correct the lesion in the cervical region.

NEURASTHENIA.

Lesion. Not in any definite point. It is a nervous irritation. Examine as to condition of sexual organs. The liver is often at fault. Lithemia is a common condition. Deep spinal contractures are always present.

Treatment. Stimulate the liver. Relax the muscles of spine in upper dorsal and cervical regions. Stimulate the heart. Manipulate the neck for drainage of head. A general treatment is indicated. A treatment just at bed time will often insure a night's rest. No two cases can be treated alike.

NEUROSES—OCCUPATION NEUROSES.

Lesion is always in the spine near exit of affected nerve, or else at vaso-motors to the nerve. For the arms it is in cervical region second to seventh, or else in the upper dorsal. In many cases it is simply long standing contractures.

Treatment. Thoroughly relax these regions and correct any lesions present. Manipulation of the structures lying along the course of the affected nerve will aid in its recovery. A change of occupation is indicated. Prognosis is good.

NEUROSES, TRAUMATIC.

In these conditions there is a tightening of all the contractile substances along the spine including deep muscles and ligaments.

Treatment. A thorough relaxation of every vertebral articulation, followed by a stimulation to the nerves of the superficial spinal region.

PLATE 32.

Turning a Rib Upward. Plate shows the process. The thumb presses between the depressed rib and the one next below, between the angle and its costo-transverse articulation. The arm is drawn strongly as shown in plate. Then the arm is pulled upward and backward and there released, the thumb still pressing as before. The first part of the motion separates the ribs posteriorly, while the latter part pulls them upward and apart anteriorly by means of the pectorales muscles, the pressure of the thumb then forcing the depressed one into its proper place.



FIGURE 32.

NEURITIS.

Lesion oftimes from dislocation or luxation of vertebra in the upper dorsal region. The nerve affected will point the lesion.

Treatment. Rest in bed. Relax the entire spine. Gently massage the structures surrounding the nerve affected. Hot applications will aid in drainage and in reducing the pain. Diet should be nourishing and easily assimilated.

OBESITY.

Diet, exercise and gymnastics are all that can be done in this condition.

OBSTETRICS.

It is safe to assume that a woman apparently well formed will come safely through childbirth, so it is not necessary to examine the pelvis unless there is a deformity or a rachitic history. But there are certain precautions which every woman should take during pregnancy. Diet of fruits and cereals, outdoor exercise and baths are conducive to an easy delivery and a perfect child.

When called, the physician should carry with him a cool head and willing hands. In addition he should have a case containing tablets of mercury bichloride, shears, surgeons' cotton, a roll of clean muslin, a sponge and a spool of silk thread.

Uncleanliness and untidiness in a case of this

kind is a crime. The expectant mother should first be given a sitz bath, carefully cleansing the perinæum. Then the hand of the operator, after a thorough scrubbing with soap and water, should be held in a bichloride solution, 1 to 1,000, for a few minutes, and then an examination of the patient should be made. The hand should be thoroughly cleansed and rendered aseptic previous to each examination. This must never be disregarded.

The bed should be prepared by placing either oilcloth, rubber or a layer of newspapers beneath the sheet. The perinæum and vagina should be thoroughly relaxed. Pressure upon and manipulations of the perineal body will produce a very satisfactory result. The dilatation of the os may be very much hastened by passing the finger, thoroughly aseptic, around the edge of the os, also by pressure on clitoris and on round ligaments. This will lessen pain. To reduce the pain, press on either side of the spine in the lumbar region, fourth and fifth, and in the eighth to tenth dorsal; this does not retard the progress of the case. Should the pains and the expulsive movements of the uterus become tardy, stimulation in the lumbar region may be effective. Relaxation of the round ligaments as they pass over the pubic crest will allow the uterus to protrude further into the canal of the vagina. Steady pressure at the symphysis pubis will also aid in relaxation of the parts and reduction of pain.

Should the child be large and the labor difficult, it is well to guard the perinæum by holding the hand against the perineal body, thus guiding the infant through the vaginal opening. Push the tissues from the symphysis toward the perineal body.

As soon as the head is born examine to see if the cord be around the neck. If so, loosen and follow it with the fingers, one on either side, within the vagina to protect it from occlusion. In foot presentation, the body should be wrapped in cloth or cotton to protect from the air until the head is born. The cool air against the skin may stimulate the respiratory center, causing the child to breathe.

As soon as the child is born, open its mouth, cleanse the mucous passages until it has given a good cry, then keep it covered and wait until the pulsations have ceased in the umbilical cord. Now draw the cord between the thumb and finger toward the umbilicus and tie with a clean thread about two inches from the infant's navel, and snip the cord just outside this point.

If the placenta has not yet been delivered, gentle traction on the cord may produce it. The mother can usually assist by an expulsive movement, as coughing or blowing into the closed hand. There is no need to hurry in this matter; an hour may sometimes elapse before the placenta is passed. In case it is not easily secured, pressure on the abdominal wall above the pelvis may secure it. Place

the palms flat upon the walls and press forcibly downward. Do not insert the hand into the uterus unless absolutely necessary. If the hand is inserted, be sure *that it is aseptic*. Pass the fingers between placenta and the uterine wall, and the air entering will often release it. If this is not sufficient, gently force it from the wall of the uterus.

After the delivery, if there has been no laceration and no cause to suspect infection, the external genitals should be carefully cleansed, the vulva protected by a cloth fastened as the napkins are usually fastened. Between the napkin and the vulva should be a pad of surgeon's cotton. Should there be post-partum hemorrhage it can be checked by stroking sharply, with the cold hand, the mons veneris.

The uterus must be reduced to contract the vessels and close the sinuses. This is done by gently manipulating the fundus through the abdominal wall. This will reduce the intensity and the number of the afterpains and shorten the lying-in period and prevent hemorrhage.

The mother should, after being made scrupulously clean, be left to sleep. Rest is the great restorer. The nurse should be instructed to carefully cleanse the external genitals with soap and water, following with a solution of bichloride of mercury, 1 to 2,000. Should it be deemed necessary to use an injection, a perfectly sterile pipe must

be used, having been dipped in boiling water, and both tube and pipe having been left in a bichloride solution of 1 to 1,000 for ten minutes. The injection may be 1 to 4,000 bichloride, or creolin 1 to 100 (1%).

The nurse should be given explicit directions as to the care of the patient. The breasts should be watched carefully. A scanty secretion of milk may be increased by a separation of the upper five or six ribs, lifting scapula, and freeing the subclavian and axillary arteries. This affects the internal mammary branches which supply the mammary gland. It also stimulates the intercostal nerves in this region. We spread the ribs, increasing the blood supply through perforating arteries, and giving a perfect drainage through the veins. The internal mammary artery may be reached at its origin from the subclavian, producing effect through the plexus derived from the subclavian, and from the inferior cervical ganglion. Let me repeat that the introduction of the hand into the uterus to take the placenta is the most dangerous part of childbirth. It should be done only as a last resort.

PALPITATION.

See cardiac troubles for treatment of heart. Press upon the inferior cervical ganglion, raise the ribs to overcome this condition. Press upon the solar plexus.

PANCREAS—TREATMENT OF.

Lesions affecting this gland are in the splanchnic area. The solar plexus affords the means of reaching it anteriorly. Treatment should be directed to ninth and tenth ribs and vertebra.

PARALYSIS.

Lesions. *First*, cerebral hemorrhage. *Second*, in cervical regions, atlas and axis. *Third*, in the upper dorsal region, and *fourth*, less often in cases of paraplegia in the lower dorsal and lumbar regions.

Treatment. The various organs, as stomach, intestines and kidneys, must be carefully watched that proper nutrition and excretion may be performed. Give a general treatment, but treat specifically to correct the lesion. In case there is cerebral lesion the cervical region should have the most careful attention. Relaxation and a soothing spinal treatment will overcome sleeplessness. Manipulate each joint should there be tendency toward anchylosis.

Prognosis. Almost always an aid toward recovery, though complete recovery is the exception.

PAROTITIS—MUMPS

Lesion. Contraction of muscles of cervical region both anteriorly, laterally and posteriorly. Treatment consists in gentle manipulation of these. Treatment around the enlarged glands will reduce

the inflammation. Rest in bed and either hot or cold applications to the swollen glands will be helpful. In case of orchitis, rest and a support together with gentle manipulation around the external abdominal ring will be sufficient. Treatment in lumbar region will aid orchitic complications.

PERICARDITIS.

For osteopathic treatment of, see Cardiac Troubles.

PERITONITIS.

Lesion. Muscular contraction in the splanchnic and lumbar regions. Usually osseous lesions in lumbar region.

Treatment consists in opening the bowels by enemas of soap-suds, if necessary. Relaxation in the regions named above. Gentle manipulation and pressure over the areas of solar and inferior mesenteric plexuses. Hot bath with quiet abdominal manipulation will usually avert an attack. Hot fomentations are invaluable. Diet should be liquid or semi-solids; raw eggs and milk beaten together, or eggs and wine, custards, broths, gruel, etc., should be the diet until symptoms have subsided. Treatment should be given as often as pain returns.

PERTUSSIS—WHOOPIING COUGH.

Lesion. Is always reflex, no constant osseous lesion. All muscles of throat and neck congested,

the contraction extending down to mid-dorsal region. Examine scaleni affecting first and second ribs.

Treatment. Remove pressure from laryngeal filaments of tenth nerve by relaxing muscles of neck. Remove disturbance to the vaso-motors of the lungs in the upper dorsal region. Correct the upper two ribs and relax the muscles in the deeper layers at the heads of these ribs.

Prognosis. If treated at beginning, the disease may be aborted. Paroxysms may be stopped by pressure at the second and third dorsal vertebræ.

PHARYNGITIS.

Lesion. In cervical region; either muscular or osseous, or both.

Treatment. Stimulate the superior cervical sympathetic after having thoroughly relaxed all the muscles of the infra-hyoid and lateral muscles. Reach the ninth nerve just below the lobule of the ear. The tenth may be reached here or in the sheath of the carotid artery. Treatment internally with finger over the mucous membrane of tonsils and pharynx reduces inflammation. A cold compress from ice water is good.

PILES—SEE HÆMORRHOIDS.

PLEURISY.

Lesion. Invariably found in the dorsal region.

The ribs on the affected side are usually down. The location of the pain will indicate the lesion.

Treatment. Raise the rib, stretch the intercostal muscles. Give steady pressure on the affected nerves at their exit from the spine. The usual lung treatment may be given. Perhaps an hour may be required to control the pain.

Prognosis. Is very favorable.

Diet. In the form of pleurisy with effusion, the diet should consist of very lean meat and stale bread, with as little fluid as will allay thirst. Ice may be sucked to avoid drinking much fluid.

PNEUMONIA.

Lesion. In the dorsal region from second to sixth vertebræ. The intercostal muscles are all contracted.

Treatment. Relax the muscles in the upper dorsal region. Use arm as a lever, put one hand between spine and scapulæ and force arm and scapula backward. This will relax the levator angili scapulæ, the rhomboids, and the continuations of the erector spinæ. Thoroughly relax all the muscles along the spine by pressing upward and outward. Manipulate anteriorly. Overcome sleeplessness by gently manipulating the spine downward and by treating filaments of fifth nerve. Bowels are to be kept regular by kneading. Stop coughing by pressing with thumb at third and

fifth dorsal. Pain can be relieved by pressure at certain point; examination will reveal it. Pyrexia controlled at sub-occipital region and first rib by steady pressure. Sponging with cool or tepid water will regulate temperature. This must be done daily.

Diet. Milk, custard, broths, fruit juice, etc., every two or three hours. Even after defervescence the return to solid diet must be very gradual.

POLYURIA.

Lesion. In the dorso-lumbar region. Examine tenth, eleventh and twelfth ribs.

Treatment. Correct lesion. Relax quadratus lumborum muscle. Spring the spine forward in case of kyphosis, frequently a lateral trouble. Treat as a kidney lesion.

Prognosis. Recovery is usually accomplished by this treatment.

POTTS DISEASE.

Lesion. Is evident. Treatment is wholly corrective and to relax the muscles along the spine thus affecting drainage. In case the disease is well marked, care must be used to avoid violence. A swing is necessary to suspend the patient from his arms, thus relieving the pressure on the spine. No violent treatment should be given.

Prognosis. In advanced cases the prognosis is very poor. In early stages it is hopeful!

PYELITIS.

Treatment for pyelitis does not differ in any marked respect from that of nephritis.

QUINSY—SEE TONSILLITIS.

RACHITIS.

Lesion. In spinal region at various levels.

Treatment. Stimulate the nerves to the digestive organs; particular attention to the splanchnics. Correct any lesions. Diet and hygiene are important. Special treatment, with exercise, baths, gymnastics and the following diet will overcome the condition.

Diet for Infants. Milk sterilized, oatmeal water and barley water.

For older Children. Fats and proteids should form the basis of the diet. Cream, bacon occasionally, stale bread, scraped beef and fruits. Avoid starches and sugars.

RECTUM—DISEASES OF.

Treatment. Control function and nutrition of the rectum in the lumbar region through the pudic nerve; also in middle sacral region. The rectum may be treated through the ischio-rectal fossa. Always examine the liver, as portal stagnation may be a cause.

RHEUMATISM.

Lesion. Referred, it may be at any point in the body. Primary lesion in liver or kidney regions of the spine.

Treatment. The liver, kidneys and intestines are three points of attack. In case of arthritis, the joints must be manipulated at each treatment. Correct the spinal lesions and separate the ribs. Often the ribs overlying the liver are dislocated. The muscles in the vaso-motor region of spine, second to eighth dorsal, are invariably contracted and must be released. Thorough relaxation of the scapular attachments, together with the muscles overlying the brachial plexus, will relieve the arms. Steady pressure along the course of the median, ulnar and musculo-spiral nerves in the arm, and over the anterior crural, sciatic and obturator nerves in the leg relieves pain and stiffness.

Treat the liver and kidneys. In acute or articular rheumatism the utmost care must be used. The kidneys and the liver must be treated as in the above. Two or three treatments should be given per day.

Diet. Soups, broths and farinaceous foods, fish, eggs and fowl in small quantities. In chronic cases meats in small quantities may be allowed. Acid waters, as dilute lemonade, may be administered. Plain water in abundance is just as efficacious. Fats are indicated, should arthritis be manifest.

Prognosis. Favorable in all recent cases.

SCIATICA.

Lesion. In lumbar region, usually lateral. Sometimes due to muscular contractions around sacro-sciatic notch. There is often a sacro-iliac slip.

Treatment. Thoroughly relax all muscles in lumbar region. After relaxing structures around sacro-sciatic notch stretch the pyriformis muscle by rotating the thigh inward. To do this, flex the leg on the thigh and grasp the ankle. Hold the knee and turn the leg so as to rotate the thigh. Flex thigh on abdomen and leg on thigh, keeping the thigh flexed, straighten the leg. This stretches the sciatic. Treat in popliteal space and at saphenous opening. Liver and kidneys are important. These treatments are paliative. The lesions in the lumbar vertebræ or at the sacrum must be corrected.

Diet. Same as in rheumatism.

Prognosis. Very favorable.

SCROFULA.

Lesion. Since this is tuberculosis of the lymphatic glands, the location of the lesion will vary with the location of the disease. The glands of the neck and axilla are controlled by nerves from the upper dorsal and cervical regions. The groin and limb by middle dorsal to lumbar (vaso-motor). The ribs are frequently at fault,

Treatment. Correct the usual vertebral lesion. Occasionally a rib is at fault. A general treatment is given here. Exercise, outdoor life and nourishing foods are indicated. Avoid pork

SPASMS.

Lesion. Is near exit of nerve to muscle affected. For cranial nerves it is in cervical or upper dorsal regions. Sometimes caused by improper nourishment to nerve—disturbance in its vaso-motors.

Treatment. Thorough manipulation of limb affected will give relief usually. Steady pressure along course of the nerve will stop the spasm. Effective treatment will be to correct the osseous lesion.

SPLEEN—TREATMENT OF.

The lesion is usually at the eighth to tenth vertebræ or else at the ninth or tenth rib on left side.

Treatment is applied by manipulation in spinal region and by flexing the limbs on abdomen and treating the spleen beneath the costal margin. Thorough vibration over ninth rib on left side changes circulation through spleen. In case of splenitis, heat is applied. The liver should always be treated with the spleen, as the venous drainage is via liver.

SUNSTROKE.

Lesion. In sunstroke or heat exhaustion the reflex lesion is a tensely drawn condition of the

muscles from the sixth dorsal upward. These must be relaxed as soon as patient has been removed to a cool place. If the temperature is high, as in thermic fever, use the ice pack, the bath, ice water enema, ice cap, etc. In heat exhaustion when temperature is sub-normal the hot bath must be used. Do not omit the hydro-therapy.

TONSILLITIS—QUINSY.

Lesion. The muscles of neck always tensely contracted; usually a primary lesion in middle or upper cervical region; this is always present in chronic cases.

Treatment. In acute cases the manipulation must be gently applied to all muscles of neck. Quietly apply pressure to the swollen tonsils until they have been reduced. Dip the fingers in cold water and press upon the tonsils and palate internally. The cold water prevents gagging. A cold compress is useful. In case of suppuration a gargle of listerine, 1:3, or a spray, 1:2, is advised. In acute cases treat several times per day. In chronic cases the lesion in the vertebra must be corrected and the connective tissue removed by a natural process of absorption. This will follow when the circulation is equalized.

Diēt. In advanced cases a liquid diet is necessary. Sometimes swallowing is impossible. A small ice bag to suck will relieve thirst and allay the pain. Rectal alimentation is rarely required.

Prognosis. Very favorable. If taken early, the case need not be serious.

TUMORS.

Lesion. Can be found in the spinal region controlling the region either in its innervation or its blood supply. Osteopathic practice proves that most tumors are caused by nervous irritation and imperfect drainage. Should the tumor be of the breast, the lesion is found in the ribs of that side or in the lower cervical region. Should the tumor be uterine, the lesion may be either lumbar, sacroiliac, or hyperaemia of the pelvic organs may result from an imperfect support of the abdominal organs. In many of these tumors a restoration of the normal condition of blood supply and drainage is effective. Do not manipulate the tumor itself very much, as irritation may follow.

Prognosis. Each case is a law unto itself. The progress of the case and condition of the patient must be considered. Many cases are helped, some are cured, some are not affected.

TYPHOID FEVER.

Lesion. Very likely the lesions are secondary only—a reflex of intestinal disturbance.

Treatment. The usual hydro-therapy treatment and nursing are important factors in the care of typhoid patients. The bowels should be kept in a

natural condition by thorough relaxation of the splanchnic and lumbar area twice each day. The cerebral symptoms are prevented or allayed by treatment in the upper dorsal and cervical regions. The fever can be controlled by cool spongings in some cases, in others it is necessary to use the bath. This treatment will not avert the disease, but it will lighten all symptoms. Gentle manipulation of the abdomen and pressure over the solar and hypo-gastric plexuses will prevent the tympanitis if begun early. Holding the sub-occipital region will relieve the headaché. Relax the entire spine.

TORTICOLLIS—WRY NECK.

Lesion. In middle cervical region usually, may be at the atlas or even in lower region. It is a type of muscular rheumatism.

Treatment. Put hand on sterno-cleido mastoid muscle at a point of entrance of the eleventh nerve. Turn the neck as far as possible each way. Putting the neck on tension by bending it and suddenly rotating the head in that same direction will usually overcome the condition.

Prognosis. Good in all recent cases. In some cases of long standing nothing can be done.

VOMITING.

In most cases of vomiting the lesion is located in the middle and upper dorsal region usually at the

third to fifth ribs. Elevation of these ribs, steady pressure at their angles and a thorough relaxation of the intercostal muscles will stop the paroxysms. This will usually stop vomiting in "morning sickness."

VASO-MOTOR DISTURBANCES.

In vaso-motor disturbances the heart, the eyes, the stomach and the vaso-motors are closely connected. If the disturbance is from the vaso-motors look for lesion in the upper dorsal region, usually from second to sixth dorsal. Again the lesion may be in the lower cervical region affecting the middle or inferior cervical plexus.

Treatment. Correction of the lesion. Treatment of the stomach, thorough relaxation and stretching of neck will usually bring about the desired result.



APPENDIX.

GYNECOLOGY.

Our race is entitled to a healthier motherhood. In eliminating drugs and substituting a rational method of treatment, Osteopathy has contributed much to this end. In pelvic, even more prominently than in other diseases, is the *rationale* of osteopathic treatment brought into view.

Take off the pressure. Remove the stasis. Replace and strengthen the organs. Nature will restore health and vitality if she have the opportunity. No matter what condition the disease of the pelvic organs may have assumed, there is too much blood there, for continued over-stimulation of the vaso-constrictors would soon result in a weakness of both nerves and vascular walls and a consequent engorgement. Always too much blood—hyperæmia. This results in a stasis, but still too much blood. Moving blood is health. Stasis reduces the nutritive properties of the blood, increases its percentage of waste products, deterio-

rates the vascular walls and produces transudation and œdema.

This increase of local fluid is an irritant to the nerve endings and the organs are excited to a condition of pain. This condition now results in a morbid metabolism, either constructive as growths, enlargements, and tumors; or to breaking down of tissue through retrograde metabolism, as in ulcerations.

In almost all cases of pelvic disturbances leucorrhœa is a preceding condition, an unmistakable sign of hyperæmia, venous stasis, and decreased vitality of vascular walls. This fluid should be returned by nature's conduits, the veins, designed to carry back the products of oxidation in the tissues. If there be pressure on the venous channels anywhere between pelvis and heart then will this exudation be present. But this pressure to the veins is not the only factor which may disturb the vitality of the pelvic organs. Closely related as they are with the sympathetic nervous system and with the cerebrospinal, both directly and indirectly, the pelvic organs are the servants of the nervous system. Any change in their positions may irritate an afferent nerve and reflexly interfere with their nutrition and function.

But this is not all. Any change that may occur along the pathway of these nerves will produce the same effect. The pelvic organs are innervated by

the nerves making their exit from the lumbar and from the sacral portions of the spinal canal, and from the hypogastric plexus lying over the body of the fifth lumbar vertebra.

The nerves to the ovary come from the uterus along the Fallopian tubes while another pathway is from the ovarian plexus, derived from the aortic plexus, thus related to the lower portion of the solar plexus. The hypogastric plexus also receives fibres from the lower dorsal, thus connecting these organs with the lower dorsal and upper lumbar spinal segments.

The arterial supply to the pelvic viscera is from the aorta via the ovarian and from the internal iliac via the uterine, drainage being effected into corresponding veins.

In position the uterus extends from the fundus, a little below the brim of the pelvis, slightly to the right of the middle line, to the upper portion of the vagina, into which the cervix projects, meeting it normally at a right angle or greater. The condition of the bladder and rectum will affect the position of this organ.

The Fallopian tubes extend laterally from the superior angles of the uterus, lying below the level of the sacral promontory, enwrapped in the broad ligament. They are from three to five inches in length, lying over and around the ovaries. The latter bodies are about one and one-half inches long,

ne inch broad and one-half inch thick, and lie in the broad ligament. They lie just within the true pelvis at the side of the uterus and cannot normally be palpated through the abdominal wall. Their blood supply is derived from the ovarian artery, their nerves from the hypogastric plexus.

Examination of the pelvic organs can be made in many cases and cures be affected without a vaginal examination. This is often true in cases of young girls. The examination should first be directed to the spine in the following regions: The ninth to eleventh dorsal, the first to third lumbar, the lumbosacral articulation, the sacro-iliac synchondroses and the second and third sacral nerves.

In addition, the fifth lumbar is almost invariably affected, either primarily disturbing the hypogastric plexus or reflexly from it.

For a local examination the patient should be on her back, the legs flexed. The body of the patient should be covered. For examination the hand should be carefully cleaned and rendered aseptic, and slightly coated with some non-irritating substance. Should it become necessary to examine a virgin the greatest care must be taken to avoid rupturing the hymen. Often an imperforate hymen may be the cause of trouble.

The left hand should be used to depress the uterus through the anterior abdominal wall. Carefully notice the position of the uterus. In ordinary

cases the index finger should, without force, reach the uterus as it extends into the vagina. Should it be too close to the vaginal entrance there is prolapse. The direction of the os and cervix will determine whether the uterus is tipped anteriorly, posteriorly or laterally; called ante-version, retro-version and latero-version.

Should the fundus be bent upon the cervix the corresponding *flexion* prevails. An examination with speculum and sound is often necessary.

Should any of these conditions be present it is an indication of the presence of too much blood of an inferior quality. Pain and irritation have called too much blood to the parts; stasis has caused its quality to deteriorate. Local applications are useless. Pessaries and supports are in no sense correctives. The treatment consists in correcting the disturbances in some of the following locations: The muscles, ligaments and vertebræ in the lower dorsal and lumbar regions should be made normal. An impacted sigmoid and rectum may cause trouble to the uterus itself or to the hypogastric plexus. Overcome constipation and in many cases the cure is effected. Remove the pressure of the abdominal viscera, prevent lacing, cause patient to stand and sit with spine straight, thorax forward and abdomen drawn backward. Control of the lower portion of the abdominal parietes so as to exert a constant lifting force on the abdominal contents will prevent

many diseases and overcome the incipient stages of all.

The pudic nerve should be stimulated as it passes over the spine of the ischium. This nerve supplies most of the perineal muscles. By maintaining their tonic condition the vaginal walls are supported, thus keeping the uterus in place. Relaxation of the perineum tends toward prolapsus.

Good effects are secured by drawing upward the pelvic portion of the abdominal wall. This is done while the patient is lying on her back, the legs flexed; or by drawing the viscera forward, the patient occupying the genu-pectoral position. Ordinary cases of displacements may be cured by the preceding movements. A very efficient treatment for misplacement is to insert two fingers into the vagina, the patient in the genu-pectoral position, the abdominal viscera pushed forward, then spread the fingers so as to admit air to the vagina. The pressure of the atmosphere will usually replace the uterus. The patient should remain quiet for some time after the treatment. Stimulation of the round ligament is useful should there be retro-flexion or retro-version.

Coccygodinea should be treated by removing any irritation to the coccygeal nerve and by quieting the coccygeal gland. A dislocated coccyx may give much trouble of this nature.

Metritis is treated through the lumbar nerves

and the hypogastric plexus. The pudic nerve is always to be treated in cases involving the vaginal walls.

Ovaritis is often relieved at the lower dorsal or first lumbar through correction of osseous dislocation. Dysmenorrhœa can be relieved and cured by correction of these lumbar and lower dorsal vertebra, and the sacro-iliac synchondrosis, together with the correction of any uterine displacement. Amenorrhœa is relieved by building up the respiratory, circulatory and alimentary systems; by spreading the lumbar vertebræ with a "figure of eight" motion; and in addition by striking your left hand, laid across the patient's sacrum, sharply with your right closed fist. This is a powerful stimulant.



INDEX

PAGE	PAGE		
Acne	38	Diarrhœa,.....	84
Ague,	40	Diarrhœa, center for..	25
Anemia,	41	Diphtheria.	77, 85
Angina pectoris	41	Dizziness	88
Annulus of Vieussens	24	Duodenum.....	28
Appendicitis	42	Dysentery.	85
Apoplexy	44	Dyspepsia.	86
Arm, vaso-motors to.....	24	Ear	28, 89
Arthritis	45	Eczema	89
Ascites	46	Emphysema	92
Asthma.....	48	Endocarditis	92
Ataxia locomotor.....	49	Enteralgia.....	93
Atlas	22	Enteritis.....	94
Atrophy, progressive muscular	50	Epilepsy.....	94
Axis.	22	Erysipelas.....	96
Biliary calculi	58	Epistaxis	97
Bladder, center for	26	Examination, Osteopathic ..	11-20
Bladder troubles.	57	Examination, positions for....	16
Boils	52	Exophthalmic goitre.....	97
Bradycardia.....	56	Eye	98
Brain troubles	52	Eye, center for	22, 28
Bright's disease	53	Femur, dislocation of	113
Bronchi, center for.	25	Fever	100
Bronchitis	56	Fever, hay	108
Calculi, biliary.....	58	Fever, intermittent.	40
Calculi, renal	60	Fever, scarlet.	101
Cardiac troubles	61	Gall stones	58
Cataract.....	61	Gastritis.....	104
Catarrh.....	62	Goitre, exophthalmic.....	97
Centers, Osteopathic	20-32	Goitre	104
Center, definition of	22	Gripes	93
Chickenpox.....	64	Grippe	121
Chills, center for.....	25	Hæmatemesis.	105
Chills	40	Hæmaturia.. ..	105
Cholera infantum	65	Hæmoptoysis.....	105
Cholera morbus.....	66	Hæmorrhoids.....	106
Chorea.....	66	Hay fever.....	108
Cirrhosis of liver.....	68	Headache	108
Coryza	62-69	Hemicrania.....	109
Cold.....	69	Hemiplegia.. ..	110
Colon, center for.....	29	Herpes	112
Constipation.....	69-72	Hiccough	112
Consumption.....	72	Hip, dislocation of.. ..	113
Convulsions.....	73	Hives.....	112
Cough	74	Hyperæmia.	112
Croup	76	Hysteria	116
Curvatures	77	Icterus.....	116
Curvature, anterior.....	78	Ileum	28
Curvature, lateral	81	Ilium, dislocation of.....	117
Curvature, posterior	80	Incontinence of urine	120
Curves of spine	12	Infantile paralysis.....	120
Deafness	89	Influenza.....	121
Dementia	82		
Diabetes.	82		

	PAGE
Insanity.....	121
Insomnia.....	122
Jaundice.....	116
Jejunum.....	28
Kidney, center for.....	26
Kidney, treatment of.....	124
Kyphosis.....	80-125
Kyphosis, treatment of.....	125
La grippe.....	124
Larynx, center for.....	28
Laryngitis.....	125
Leukemia.....	126
Lithæmia.....	128
Liver, arrhesis for.....	68
Liver, center for.....	25
Liver spots.....	129
Liver, treatment for.....	128
Lordosis.....	78, 129
Lumbago.....	130
Lungs, treatment of.....	130
Lungs, vaso-constrictors.....	24
Malaria.....	40
Measles.....	132
Melancholia.....	133
Micturition, center for.....	25
Migraine.....	109, 133
Mumps.....	133-145
Muscular rheumatism, myalgia.....	134
Myocarditis.....	136
Nerves, spinal origin of.....	20
Neuralgia.....	136
Neurasthenia.....	137
Neuritis.....	140
Neuroses, occupation.....	138
Neuroses, tranmatic.....	138
Obesity.....	140
Obstetrics.....	140-144
Palpitation.....	144
Pancreas, treatment of.....	145
Paralysis.....	145
Paralysis, infantile.....	133
Parotitis.....	120
Pericarditis.....	146
Peritonitis.....	146
Pertussis.....	146
Pharyngitis.....	147

	PAGE
Pharynx, center for.....	22-28
Phrenics, origin of.....	22
Phthisis, pulmonary.....	72
Piles.....	106
Pleurisy.....	147
Pneumonia.....	148
Polyuria.....	149
Potts' disease.....	149
Pyetitis.....	150
Pyrexia.....	100
Quinsy.....	154
Rachitis.....	150
Rectum, center for.....	29
Rectum, diseases of.....	150
Renal calculi.....	60
Ribs, setting.....	36, 37
Rickets.....	150
Rheumatism.....	151
Rhinitis.....	62
Sciatica.....	152
Scoliosis.....	81
Scrofnla.....	152
Spasms.....	153
Spines, levels of.....	17-18
Spleen, center for.....	24-25
Spleen, treatment of.....	153
Stomach, center for.....	24-25
St. Vitus dance.....	66
Sunstroke.....	—
Tabes dorsalis.....	49
Thyroid gland.....	24
Tonsilitis.....	154
Tonsils, center for.....	28
Tormina.....	93
Torticollis.....	156
Tuberculosis of lungs.....	72
Tumors.....	155
Typhoid fever.....	155
Uterus, center for.....	25-29
Urticaria.....	112
Vagina, center for.....	26
Vaso-motors.....	157
Vomiting, center for.....	24
Vomiting, treatment for.....	156
Whooping cough.....	146

University of California
SOUTHERN REGIONAL LIBRARY FACILITY
405 Hilgard Avenue, Los Angeles, CA 90024-1388
Return this material to the library
from which it was borrowed.

2 WKS FROM RECEIPT

SEP 25 2000

U.C.'S



UC SOUTHERN REGIONAL LIBRARY FACILITY



A 000 510 207 4

UC IRVINE LIBRARY



3 1970 01623 8195

WB940

R569m

1901

Riggs, Wilfred L.

Manual of osteopathic manipulations and treatment

WB940

R569m

1901

Riggs, Wilfred L.

Manual of osteopathic manipulations and treatment

MEDICAL SCIENCES LIBRARY
UNIVERSITY OF CALIFORNIA, IRVINE
IRVINE, CALIFORNIA 92664



PRINTED IN U.S.A.

Uni
S