

sepsis, the gonococcus being obtained from the blood of the patient during life; Powers reports one of diffuse gonococcus infection of the entire upper extremity; and Salomon, a case with gonorrheal cutaneous ulcers. Gonorrheal ophthalmia is responsible for from 10% to 25% of the inmates of our blind asylums. The gonococcus surgery of the abdomen includes from 10% to 90% of all the pelvic suppurations in women, the figure varying with the operator. In the male a large part of the surgery of the genito-urinary tract can be traced to the gonococcus as a cause.

There remains simply the statement that the aorta, the smaller vessels, and the heart itself, are all subject to attack by the gonococcus. Eiseendracht feels certain from his experience that urethral gonorrhea exerts a distinct influence predisposing the genito-urinary tract to tuberculosis. In both male and female, he says, gonorrhea prepares the soil for a later invasion by the tubercle bacillus.

In the face of the foregoing facts, would it not seem likely that when the public is thoroughly informed it will speedily alter the social conditions that led Joseph Taber Johnson to say only a year ago that "90% of all men acquire the disease." Even if we take exception to his large figure, as some of us will be inclined to do, the minimal percentage persists above 50%, and the consequent harm to the people in sickly women and incapacitated men, and in sterile men and women is sufficiently striking to engage the attention of those who are disposed to protect themselves and their neighbors. Neither syphilis nor gonorrhea is a desirable public asset. In due time, through organic disease, through sterility of both sexes, or through fetal death, they will decimate the hardiest race. Though both are curable under favorable conditions, many unnecessary infections may, and often do, take place while one is being cured. Many cases fail of cure. The ultimate result at such a rate is a retrograde rather than an advance. There is only one radical cure, and only one method of procedure will avail. If the medical profession will inform the laity fully and freely as to the facts in the case, the work will be in the hands of the people from that time forward. There is little doubt that they will rise to the occasion. Their co-operation is indispensable to their own salvation and nothing short of thorough accomplishment should be their aim.

ANATOMIC AND PHYSIOLOGIC REST OF THE PERITONEUM IN PERITONITIS.

BY BYRON ROBINSON, B.S., M.D., CHICAGO.

SINCE I was a pupil of the late Mr. Lawson Tait, one of the greatest surgical geniuses of his day, I have studied and practiced the subject of *anatomic and physiologic rest* of the abdominal viscera, for fifteen years. Mr. Tait was profoundly suggestive, teaching rather by example and practice than by theory. I learned from the brainy Tait the inestimable value of anatomic

rest and physiologic rest in abdominal disease, *i. e.*, practically anatomic and physiologic rest of the *peritoneum*.

Anatomic rest is maximum quietude of skeletal or voluntary muscles. A voluntary, motionless state is secured by rest in bed, not rising for defecation or urination.

Physiologic rest is minimum visceral function. Minimum visceral function is controlled by means of fluid, food, mental quietude and therapeutics. The essential factor in minimum visceral function is peristalsis. Visceral peristalsis is an executor of pain and a distributor of sepsis. The method of treatment for abdominal pain by anatomic and physiologic rest was especially advocated by the distinguished English physician, Wilkes, in 1865 (living at present), continued by the famous American, Alonzo Clark (1807-1887), by the "opium splint," and established forever in 1888 by one of the greatest surgical geniuses of his age—Lawson Tait (1845-1900). Mr. Tait did not secure his success from so-called antiseptic surgery, nor from even present methods of aseptic surgery, for I have watched him do successful abdominal sections on returning from his yachting expeditions, where he delighted to be his own cook, with anything but aseptic hands, and by washing them in soap and water two minutes or less, was ready to do the section.

Tait's success lay in anatomic and physiologic rest with thorough visceral drainage, especially of the tractus intestinalis. He used to remark to his few pupils that the patient should have the bowels so thoroughly evacuated that the intestines were like slippery ribbons when the abdomen was opened. When the intestines are contracted to the shape of slippery ribbons they are in a state of physiologic rest. Besides, Tait kept the bowels in a state of physiologic rest by allowing no fluid or food per mouth for forty-eight hours—a cruel method—after the section. Practically, the patient was without food for four days so far as any action on the bowels was concerned.

Anatomic rest was secured by rest in bed—quiet bones and muscles. On the third day, Mr. Tait again drained the tractus intestinalis with magnesium sulphate and mild chloride. This gave the bowels another physiologic rest, after the visceral drainage. For some fifteen years, I have been following the method of anatomic and physiologic rest in the inflammatory and operative diseases of the abdomen. I am induced to write this on account of the slight attention paid to the subject of anatomic and physiologic rest by so many general practitioners and general surgeons.

First and foremost, the most striking success in anatomic and physiologic rest is shown in septic abortions. Even as short a time as ten years ago, it was a general treatment in some hospitals in septic abortion to curette vigorously, irrigate and pack the uterus immediately on arrival at the hospital and follow this by vigorous catharsis. I learned fifteen years ago from a considerable practice in gynecology and obstetrics, that

it was a very fatal practice. In fact, when at that time I saw a case of abortion with temperature 105°, pulse 130 and severe tympanitis, I generally considered the prognosis was fatal with the then active treatment. For the past dozen years in abortion cases I have assumed the treatment I learned from Lawson Tait, *i. e.*, that of anatomic and physiologic rest. When the abortion patient arrived at the hospital, septic, with a temperature of 105°, pulse 120 to 140, with severe tympanitis, she is placed on her back in bed, she is not allowed to rise for stool or urination (anatomic rest). No food or fluid is allowed per mouth; she is given a hypodermic of morphine for pain, and warm normal salt solution is injected into the rectum to abate thirst (physiologic rest). Her friends fight against this alleged cruel and unusual punishment, but the hospital should get control of the patients by soon parting with the friends. It is astonishing what a day and a night's anatomic and physiologic rest will do for a septic aborted patient. She soon becomes easier under rest. The small doses of opium aid to check the pain which is wild peristalsis. The tympanitis subside. In a few days one finds the peritoneal exudate still there, but in a couple of weeks, if abscess formation does not occur, they begin to subside, absorb. Put the intestines at rest and they will not distribute the sepsis over the abdominal cavity by wild and irregular peristalsis. Under anatomic and physiologic rest, seldom does one lose an abortion patient.

In the second ten years of my practice I have saved double the number of septic abortions by means of anatomic and physiologic rest, in comparison to the so-called active treatment.

I am aware of no septic infectious process where the anatomic and physiologic rest method will demonstrate its utility as well as in septic abortions. Again, for about ten years, an able surgeon, whom I would meet almost daily, has tried to convince me that hot, moist compresses saved him from amputating many limbs. Hot, moist compresses with him are a hobby, and I must say that he saves many terribly septic limbs and fingers. However, I think this good surgeon is mistaking hot, moist compresses for the favorable therapeutics,—anatomic and physiologic rest. When a septic limb is put to anatomic rest, the bone is immobile. The muscles lie quietly, no contractions and relaxations impel or force the lymph stream proximalward, conveying sepsis with it. The blood stream is physiologically quiet, moving at a minimum rate. In short, the sepsis in the infected limb is being circumscribed by anatomic and physiologic rest, and not by hot and moist dressings. He also claims that the hot, moist dressings must be antiseptic, as bichloride of mercury or alcohol. I have argued with this surgeon that it was the anatomic and physiologic rest that produces the favorable effect in the cases which he thought was due to hot, moist dressings. In perityphlitis, the most treacherous and dangerous of abdominal diseases,—dangerous because it kills, and treacherous because its capricious course cannot be prognosed,—

anatomic and physiologic rest is equally favorable; but it fails in some cases where the sepsis has been excessively distributed by enteronic peristalsis, and therefore many of my colleagues condemn it.

It is an error to condemn anatomic and physiologic rest in perityphlitis without extensive trial, for it requires the highest skill and abundant experience to form a correct judgment in many cases of perityphlitis as to the appropriate time to operate. For example, I find considerable opposition among physicians in consultation in cases of perityphlitis in regard to the administration of cathartics in acute and incipient cases. I argue with them that a cathartic in acute perityphlitis is about the worst form of malpractice. It makes the perityphlitis worse by distributing the sepsis over new areas of peritoneum and increases peristalsis, and thus increasing the pain while it gives the patient no relief from his perityphlitis. Such a practitioner mistakes the result of the perityphlitis (peritonitis) for perityphlitis itself. What the perityphlitis patient requires is anatomic and physiologic rest, no food and minimum quantities of fluid per mouth; however, ample injections of normal salt solution per rectum to control thirst, and rather opium to quiet the pain, until when? Until recovery, or until he is ready for an operation in a stage as quiescent as possible. During twenty-five years of practice I have been infected in the fingers and hands about ten times. If I worked with the hand with the septic finger, all day, at night it was worse; it throbbed, ached and became swollen. If I placed the hand in a sling—semi-anatomic and physiologic rest—it would improve, but, with a night's anatomic and physiologic rest, it was in a favorable condition in the morning. We can save large numbers of patients from dangerous and unsatisfactory operations by anatomic and physiologic rest. They can be bridged so that operations will not be required during severe local and general sepsis.

Physiologic rest consists of minimum function of viscera. When one considers that every abdominal visceral tract—intestinalis, urinarius, vascularis, lymphaticus, genitalis, nervosus—possesses the four common functions of sensation, absorption, secretion, peristalsis, and all the visceral tracts are connected with the peritoneum, it becomes evident that valuable aid may be rendered the patient by controlling the visceral functions. The four great functions (peristalsis, absorption, secretion, sensation) of the tractus intestinalis, *e. g.*, are practically produced and maintained by food and fluid. In cases of acute peritonitis, no fluid or food should pass per os. All required fluid should be administered by means of a fountain syringe, by means of slow, drop by drop, rectal irrigation. By this method all visceral peristalsis is diminished, and pain subsides. Intestinal as well as genital peristalsis distributes sepsis. The two visceral tracts which should pursue maximum activity in peritoneal disease are the tractus vascularis and tractus urinarius. Both the vascular and urinary tracts may be treated alike effectually by the same method,

viz.: gradual, slow, rectal irrigation with normal salt solution — 8 oz. per hour.

This lends volume, that is, vigorous peristalsis, to the vascular system and forces abundant elimination through the kidneys. The peristalsis of both tractus urinarius and tractus vascularis are vigorous, yet neither practically disturbs the peritoneum sufficient to distribute sepsis. There are few diseases which are controlled so effectually by anatomic and physiologic rest as peritonitis. The army of leucocytes of the peritoneum have almost plenipotentiary power in: (1), imprisoning, *i. e.*, building barriers of peritoneal exudates; (2), digesting, *i. e.*, destroying, and (3), sterilizing, *i. e.*, isolating, bacteria if the peritoneum be placed in a peritoneal splint, or rather in a state of anatomic and physiologic rest. The general surgeon appears to realize that the inflamed joints demand anatomic and physiologic rest, but seldom does he apply the principles to a fractured (desquamated) peritoneum. However, it is not strange that the inestimable value of anatomic and physiologic rest is overlooked by both the general surgeon and practitioner, since practically nothing in the medical colleges is taught on the important subject of anatomic and physiologic rest. The modern physician is gone to seed on technic. Surgical technic is the wailing cry of the medical college instead of the grand principles of physiology and pathologic physiology. In abortions accompanied with peritonitis, the cruel and unusual punishment, the uselessness and the brutal fatality of the sharp curette within the uterus has been demonstrated a thousand times; but as a young practitioner remarked, even the gynecologic books herald little warning of its immediate or remote damages. Practically, the sharp curette should be used within the uterus for diagnostic purposes only. Vastly more patients would be saved in abortions and salpingitis, if the tractus genitalis was more frequently placed in anatomic and physiologic rest. Anatomic and physiologic rest presents a double-edged sword of utility, for it is not only the most effective and safe remedy to avoid dangerous operation, but it is the most effective and safe method to prepare the patient for safe operations.

External to the peritoneum, observe the value of anatomic rest in inflamed joints, spondylitis, fractures. That anatomic and physiologic rest aids in the formation of thrombosis and embolism, I doubt.

The great principles gained by anatomic and physiologic rest are: (1) the lymph stream, especially in the peritoneum, is slowed, the muscular action required to force it with sepsis in the general system being practically absent. (2) Pain is diminished by checking muscular action and especially peristalsis. (3) In peritonitis, peristalsis not only enhances the lymph stream, but mechanically distributes germs over extensive areas in the abdominal cavity. (4) Anatomic and physiologic rest aids to circumscribe infection and save the patient from operation and death. (5) Anatomic and physiologic rest is one of the most excellent therapeutic agents to prepare patients for safe and successful surgical procedures.

TARSAL INJURIES.

BY JOHN G. W. KNOWLTON, M.D., EXETER, N.H.

UNDER the head of injuries to the tarsus, the writer wishes to draw attention to simple, non-communited fractures without external wounds.

The above paragraph might as truly read, injuries to the tarsus which the patient considers and describes as a "very bad sprained ankle."

Of the seven (7) tarsal bones, this paper will deal only with the os calcis and astragalus, as the others seldom suffer injury except by severe crushing of the whole foot, when two or more bones are injured and usually in connection with an external wound.

The difficulty the writer experienced in the diagnosis and the importance of consulting the x-rays are the reasons for presenting these cases to the society.

SIMPLE FRACTURES OF THE OS CALCIS.

CASE I. The patient was a male, thirty-six years old. He is a carpenter. While at work, standing on a step ladder, it slipped, and the patient fell about eight feet, striking the floor on his right foot. He noticed considerable pain in his foot, but continued working for an hour. The patient was seen next day, complaining of a "sprained ankle." There was considerable swelling of the foot, especially of the posterior and external surfaces. Tenderness was marked over this area, but no bony deformity, no abnormal mobility, and no crepitus could be detected. A plaster bandage was applied and cut the same day.

For several days after the accident the conditions of the first examination prevailed. There was great discomfort when the bandage was removed, pain on motion, movement somewhat limited and considerable tenderness.

An x-ray examination was advised and made. The radiogram showed a fracture into the posterior surface of the os calcis about an inch long.

The plaster was removed and a new one applied, with the foot slightly flexed. At the end of six weeks there was a good callus and movement without pain. Crutches were continued two weeks longer.

CASE II. The patient was a linesman, who fell from a height of about twenty feet, striking the ground on his right heel. He was unable to work on account of pain and disability of function of the foot. He was seen a short time after the accident. There was considerable swelling and ecchymosis about the heel. Examination showed bony deformity, abnormal mobility and crepitus. The x-ray confirmed a diagnosis of simple fracture of the os calcis.

SIMPLE FRACTURE OF THE ASTRAGALUS.

CASE III. The patient was a male, seventeen years old, and weighing about one hundred and eighty pounds. While standing on the ground, watching an athletic contest, he became enthusiastic as one of his friends won an event, and throwing his cap in the air, he followed it, but he came down in a little hole. He did not fall. He felt a sudden pain in his left foot and, without assistance, hobbled to a carriage, about three hundred yards distance.

The patient was examined within an hour of the accident. He said he had sprained his ankle, and the foot did look like a sprain. There was very little swelling, so that the bony landmarks were prominent.

There was no bony deformity, abnormal mobility or crepitus. The whole surface of the ankle was tender.