

On the 12th of January, the mother of the family found herself thickly covered with a similar eruption. During the day before she had noticed that the glands of her neck were tender, and she was slightly hoarse. On the same day at noon, M. L., about eight years of age, on the next day, J. L., and four days later, R. L., eighteen months of age, were attacked; each one was ill two or three days.

M. S., a housemaid, had it on the 26th of January. She had a cold at the time and some cough, nevertheless she was entirely well in three days.

An aunt who had been a constant visitor at the time, had a similar attack, beginning January 19th.

All of these patients had had measles except the two youngest children, and of these two, the elder one had measles a little over a month later, and the youngest has not had it.

To sum up, I believe that *rötheln* is an independent disease with its own characteristics. Though at a given moment an anomalous case of *rötheln* may closely resemble an anomalous case of scarlatina or an anomalous case of measles, yet this similarity rapidly disappears. Taken as a whole, *rötheln* differs from any other disease in its incubation, its prodromes, its invasion, its eruption (and other symptoms of the eruptive stage), its complications, its sequelæ, and finally, in the results of its contagion.

THE TREATMENT OF SENSITIVE SPINES.¹

BY ROBERT W. LOVETT, M.D., BOSTON.

I WISH to call to your attention and to speak of the mode of treatment of an affection of the spine, the proper name of which I am unable to give. The condition is manifold, and is surrounded by much neurological obscurity as to pathology, etiology and nomenclature.

To the surgeon it appears as a sensitive and painful condition of the spine, manifested by sensitiveness most often over the spinous processes of the vertebræ, pain in motion and manipulation; and in most of the cases that I have seen it has been associated with a certain amount of general neurasthenia. The painful condition of the spine is evidently not the result of organic disease of the spine or cord, for the patients recover in most instances under proper treatment. On the other hand, with temporizing measures, the condition persists for years, varying but little, and leading generally to a bedridden and helpless condition in the severer cases.

It seems wiser for me not to attempt to speak of this condition by any other term than a sensitiveness of the spine. If I use the name, irritable spine, or any similar one, I may commit myself to some definite neurological theory without being conscious of it; and I wish merely to speak of the condition in its practical surgical aspect.

But in looking over the literature, I have found described, under various names, a condition which in some instances was identical with this and which was classed under the names, spinal concussion, spinal neurasthenia, spinal weakness, spinal irritation, functional disease of the spine, hysterical spinal disease, and the like.

In the cases that I have seen, in most instances it has been possible to trace the beginning of the symptoms to some injury, but in other cases the same symptoms have been present without any traumatic origin; so that it seems to me that the name for this condition should not be one which asserts anything about its causation. The injury causing the trouble was in most cases a fall, more or less severe, jarring the spinal column. In one instance, a railroad accident was the cause, in another, a wrench of the back in playing foot-ball; but in general the spinal sensitiveness was a remote rather than an immediate result of the accident. In other cases it began slowly, perhaps after some exhausting disease, as in one case after typhoid fever.

The symptoms are local and general. Locally, one finds pain and sensitiveness sometimes spread over the whole back, but at most times limited to a certain area over the vertebral column. It may be cervical or it may be confined to the sacrum and coccyx; and a fairly common situation is over the sacro-iliac joints, but in my own experience it has been most often situated in the dorsal or lumbar region. This sensitiveness is to both deep and superficial pressure. It is often sharply localized, and the pain is generally limited also to the area affected. Standing aggravates the pain, as do also riding in a carriage or car and sitting in an uncomfortable chair, so that relief is sought in recumbency. At times, the pain persists during recumbency, but even in these cases it is made worse by sitting, standing or walking.

On examination, one finds in the lighter cases a perfectly flexible spine, but motion may be voluntarily restricted in certain directions on account of the pain caused. In the severer cases the spine may be, and generally is, held quite rigid over the affected area either by voluntary or involuntary muscular effort. This stiffness is a most perplexing matter in the diagnosis at times.

There is no angular deformity such as one finds in Pott's disease, although unnatural attitudes may be assumed on account of the sensitiveness, such as a rounding out of the whole back in the dorsal region or a slight lateral deviation. The connection of lateral curvature and this spinal sensitiveness has been but little referred to. Indeed, this whole condition, so far as I can learn by my reading, has been much neglected from a therapeutic point of view.

The most important local condition has been left to the end, as to the writer's mind it is of the greatest aid in the diagnosis and the chief indication as to proper curative treatment. This condition is muscular weakness, both general and of the spinal muscles. It is to be noted on inspection and by measuring the strength of the muscles of the back by manipulation. This theory of muscular weakness, for which I am indebted to Dr. Bradford, explains the pain on the supposition that in the absence of proper muscular support the body weight comes more upon the posterior spinal ligaments and the fasciæ and aponeuroses of the back than it should, and that this is the immediate and primary cause of the pain. Just as in flat-foot, when first the muscular support gives place to ligamentous support, intolerable pain is to be felt in the ligaments. This does not, and cannot be assumed as the cause of every case of spinal sensitiveness, for it occurs at times in patients with muscles of normal strength, as measured by an apparatus for testing the back mus-

¹ Read at the Boston Society for Medical Improvement, March 27, 1893.

cles. The theory simply serves to explain to the surgeon the cause of most cases and to suggest to him the proper line of treatment.

This theory of insufficient muscular support does not in any way assume that congestion of the affected areas may not be present or that the blood-supply of the spine may not be seriously deranged. It only states the fact that muscular weakness is almost invariably present, that increasing the muscular support in most cases cures the sensitiveness. The condition on this supposition would seem more akin to painful flat-foot than to anything else. It is upon this theory of insufficient muscular support, generally in connection with neurasthenia, that the treatment about to be described is based.

The general condition of these patients is of the utmost importance and significance. In most cases they show marked symptoms of neurasthenia. They are, for the most part, young and middle-aged women of nervous temperament and poor development. They have such symptoms as the globus hystericus, basal headache and a stiffness at the nape of the neck, ovarian tenderness, prickling of the hands and feet, confusion in talking, and the whole class of symptoms grouped as neurasthenic. They may or may not have uterine trouble severe enough to be of account; but their symptoms of spinal sensitiveness are almost invariably worse when they are menstruating than at other times. The general condition is always poor, and, as a rule, the patients are badly nourished. They walk feebly and stiffly, and often they are entirely bedridden.

The diagnosis is generally easy from Pott's disease, which is the condition for which it is very often mistaken. But cases may occur where the diagnosis is impossible for a time.

There is no angular deformity as in Pott's disease. There is, however, extreme sensitiveness of the spine to superficial pressure, which is almost never present in Pott's disease. Flexibility of the spine is the rule; whereas in Pott's disease rigidity is marked. The presence of neurasthenic symptoms would lead one to assume the presence of the less serious disease.

In a word, the disease has no angular deformity, neurasthenia is generally present, the spine is sensitive to the touch, and flexibility is not impaired much except in advanced cases; and advanced cases of Pott's disease always show unmistakable deformity.

To illustrate the difficulty of diagnosis I may mention one case. A young man from another city came under my care last summer who had been under the care of one of the leading orthopedic surgeons of the country. He had diagnosticated Pott's disease two years previously, and had applied a steel back-brace. The young man wore it for a year or so, gradually discontinued it, had a relapse, reapplied it, and on taking it off had another relapse. Seen by a surgeon of national reputation, he was told to throw away the brace and exercise. This brought on much pain; he was crippled and bedridden, and when he came to me could scarcely walk. At this time I believe that a diagnosis was impossible. There was a suggestion of neurasthenia, and I put him to bed and overfed him. He responded at once. I gradually increased the exercise until he took an hour a day. Massage restored the flexibility to the spine and the diagnosis became clear. There was not, and probably never had been, Pott's disease. After nine months he is quite well, rides

horseback and dances, and never feels any pain in his back.

The treatment which I wish to describe is not, I fancy, in any way new; but I do not know of any place where one can find it formulated for these cases, and it has in my hands yielded the most satisfactory results.

The severer cases and those in which the general condition is markedly poor should, I believe, be put to bed for some time and treated by the Weir Mitchell plan of rest and feeding. This, it seems to me, is indicated, both as a means of improving the general condition and also to quiet and rest the irritated spinal ligaments by removing the strain from them. The patients are kept entirely recumbent, and are made to use the bed-pan in the more severe cases. They are fed every hour or every two hours, taking in the twenty-four hours eight to fourteen eggs beside milk, beef-tea and meat. They are massaged gently every second day; and after a few days of this treatment, the use of faradic electricity is gradually begun on the day when massage is not given. The back is excessively sensitive, and the current is mildly applied, avoiding at first the sensitive spots. Massage and electricity rapidly diminish the sensitiveness of the spine.

After a continuance of this treatment for days or weeks, according to the general condition of the patient, she is allowed to sit up in an easy chair for five minutes, with the back supported; and then the time is rapidly increased.

At this time one begins upon exercises calculated to develop the erector spinæ muscles. These exercises have in my experience invariably aggravated the pain which is generally much diminished by the recumbency. The exercises prescribed are arch flexions of the spine when sitting; then resistance is offered to backward flexion of the trunk with the arms behind the head; and finally, when the patient is much stronger, she lies on the face and the feet are held while with the arms on the hips she flexes the trunk. It is merely, I believe, a question of prescribing easy motions which cultivate the erector spinæ muscles, and addressing them particularly to the region most affected, whether cervical, dorsal, or lumbar. One of the most successful cases that I have treated in this way was a young woman where the pain and sensitiveness were limited to the sacrum and coccyx; and it required the most intimate knowledge of the Swedish movements on the part of the masseuse to apply them so as to reach the proper muscles.

As the exercises are prescribed the patient is encouraged to walk a little; and if spinal motion is very painful, a supporting brace is allowed, which consists of a steel waist-band and two tempered, steel uprights fastened to shoulder-straps. This is used merely to support the spine until the muscles are able to do so; and is to be regarded as a temporary measure, to be abandoned at the earliest possible moment. The patient is gradually encouraged to do more each day without regard to her sensations, except during menstruation when she is kept in bed.

Personally, I always have cases where there is any question of uterine trouble examined by a gynecologist, to be sure that no uterine displacement exists, which might cause the backache. The patient is encouraged to progress as fast as may be, and to leave invalid ways behind her. The treatment is, in a word, first rest, and then muscular development in connection

with the most effective measures addressed to the general condition.

But a great many patients do not need such stringent measures as these, nor, on the other hand, can every one give up entirely for weeks or months; and a treatment which can be pursued at home and which is perfectly suitable for lighter cases must be found. These patients should be encouraged to lie down at least part of the day; even working people can save two or three hours by going to bed early. If possible, they should lie down both morning and afternoon, and should get up late. In short, the same aim of resting the back should be kept in mind as in the severer cases, and this should be accomplished in every way.

In such cases as these I apply the elastic brace almost as a routine treatment; and in one or two of the severer cases I have used a rigid steel back-brace to prevent spinal motion when the sensitiveness was severe, taking it off only for the exercises.

The general condition is most carefully looked after, the bowels are regulated, the appetite is stimulated, and eggs (from six to ten daily) are prescribed, often with a little alcohol. Walking and riding are almost invariably painful; and it is always a question how much of these should be done. It seems best at first, during the period of rest, to limit them as much as possible and to increase them very gradually, laying the chief stress upon exercise directed to the muscles affected.

Many patients cannot afford, or for some reason cannot have, massage and electricity; and yet they do well, only they progress more slowly. If attainable they are, I believe, of the utmost importance. Hot douches to the spine have often been of use in such cases. The exercises are the same as those used in the severer cases; and for the best results the cases should, I believe, be in the hands of some person skilled in massage and Swedish gymnastics. The tendency is certainly to err on the side of encouraging these patients to do too much, to walk too far and to overexercise, and one has to remember continually how great is their disability and how carefully they must be handled.

The brace is gradually discontinued, the amount of exercise increased, and the period of recumbency diminished. It is the same plan of treatment as before — first rest, and then graduated and progressive exercise; and these are no more important than is the general routine of treatment addressed to the general neurasthenia; either alone accomplishes little.

It is hardly necessary to call attention to the fact that a positive diagnosis must be made before this treatment can be successfully carried out. It is just opposite to what one would desire to do in Pott's disease; exercise always increases the pain, and a certainty on the part of the surgeon is necessary to secure the proper morale on the part of the patient.

The treatment, then, may be dismissed as consisting of general measures along with rest to the irritated ligaments, followed by active muscular exercise addressed to the supporting muscles of the spine. Electricity and massage by themselves are to be regarded only as subordinate measures to be used when practicable, and by themselves as affording very incomplete treatment. The need of counter-irritation to the back, and burning with the cautery, is not felt with the above-mentioned measures.

Clinical Department.

A CASE OF EXTRA-UTERINE PREGNANCY.

BY D. E. BAKER, M.D., NEWTONVILLE, MASS.

THE patient, twenty-four years of age, was first seen at my office in January of this year, when she complained of pain in the stomach, flatulence, rumbling of flatus in the bowels, weight and soreness in the lower abdomen. She was nervous and anæmic. She had been married five years, and four years ago had had a miscarriage at six months. She had been in ill-health much of the time for years, suffering from backache, vague pelvic pains and constipation. Tonic treatment, including iron, improved her flesh and color. Menstruation was regular until January 28th, when it failed to appear at the proper time. When nearly a week overdue, she began to complain of pain along the rectum when standing, with the feeling that the bowels ought to act; but defecation failed to give the expected relief. There was some tenderness in the left iliac region. The breasts were sore to the touch.

Examination by the vagina showed the uterus enlarged, pushed to the right and somewhat forward and lower than normal. At its left a mass, oval in shape, slightly movable and tender to the touch, could be distinctly outlined. The diagnosis of probable extra-uterine pregnancy was given the patient; and she was charged to remain in bed, as the pain and pressure were so marked when on her feet.

On examination thirteen days later, the mass had enlarged considerably and was felt lower and more behind the uterus. Sensitiveness on vaginal and rectal touch was greatly increased. Meanwhile there had been an irregular flow of dark blood from the uterus. The tumor was thought to be an unruptured tubal gestation, and the patient warned of the danger of hæmorrhage and inflammation, and advised to have the mass removed.

The next day Dr. Wood, of Waltham, saw the case in consultation and concurred in the diagnosis and the necessity for immediate operation. By courtesy of the Waltham Hospital, the patient was at once removed there for operation.

March 17th, the patient was etherized by Dr. Winslow, Drs. Wood and Cutler assisting in the operation. The abdomen was opened by an incision three inches long. No blood was visible upon entering the peritoneum; but in disturbing adhesions at the left of Douglas's fossa, a few drops of dark, extravasated blood were sponged out. A mass the size of a lemon was isolated from the left ovary and rectum, to which it adhered, and delivered through the abdominal wound, the Fallopian tube ligated, and the tumor cut away. The right ovary presented a cyst the size of a walnut, which was dissected away from its bed, and the resulting raw surface closed by sutures of fine silk. The hæmorrhage was insignificant and the shock but slight.

The patient rallied well from the ether, but for three days had a severe bronchitis, with profuse expectoration, at first mucous, later muco-purulent in character, accompanied by cough and pain in the right side. Digitalis was freely given with the nutrient enemata until the moist râles throughout the chest had cleared up and the pulse came down to 50. On the 18th an enema of salts, glycerine and water was given to re-