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THERAPEUTICS

OF

DEGENERATIVE DISEASES OF THE SPINAL CORD.

BY

CURRAN POPE, M.D.,

Clinical Professor of Diseases of Mind and Nervous System, Louisville Medical College; Consulting Neurologist to the Louisville City Hospital; formerly Resident Physician to the Anchorage (Insane) Asylum; Member of Pan-American Medical Association; Member Mississippi Valley Medical Association, Kentucky State Medical Society, Jefferson County Medical Society, etc., etc.

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THERAPEUTICS OF DEGENERATIVE DISEASES OF THE SPINAL CORD.

SUFFERERS from this class of diseases are many, and any mode of treatment by which their condition can be bettered will not only be hailed by the profession with pleasure, but by them with joy. They too often feel that they have entered that vale "where hope is left behind," and that any and all effort on their and their physician's part is useless. Such belief is opposed to actual facts. It was a belief of former years that has been changed by the steady advance of scientific knowledge and the improvement and invention of apparatus for the relief of disease. As we advance in knowledge there will be fewer and fewer diseases classed as incurable, a notable example being myxœdema.

The therapy here mentioned is not original, nor is it claimed to be, but success in the treatment of the three diseases discussed leads the writer to place before you the results of his work. It would be foreign to the title of the paper to discuss etiology, symptomatology, pathology, or prognosis, and without quotation of cases I will proceed to a description of that treatment which in my hands has yielded the best results. In passing I would like to state that it has been impossible to carry out this line of treatment in clinical patients, owing to the cost. The objects of treatment are three: First, to arrest the disease; second, to palliate the symptoms; and, third, to relieve suffering.

Myelitis.—Hygienic treatment is very important. Rest, both physical and mental, with a simple, unstimulating, and easily digestible diet. Alcohol, tobacco, and coffee must be interdicted or limited to exceedingly small quantities, while a regular and quiet life in the open air is almost a necessity. In winter, sitting in the sun is of advantage. *Drugs have been of little value.* If a myelitis is from specific disease, antispecific treatment may be of use. I prefer inunction, and the iodide internally in Vichy water well diluted, the latter having also a beneficial effect upon the bladder. Of the drugs usually used, nitrate of silver, the red iodide of mercury, arsenic, ergot, and phosphorus have been in my hands of only occasional benefit in conjunction with other treatment. If anæmia exists, as shown by hæmometer, I use the sulphate and saccharated carbonate of iron, with minute doses of arsenic or quinine, to which one-half to two grains of boric acid may be added for the bladder trouble usually existing. The urine should be examined from time to time, and no hesitancy felt in using the catheter if cystitis is present.

Benedict has found the direct static spark over the bladder almost a specific, relieving the irritation and giving comfort, and I have used it on several cases with bladder trouble with advantage. In recent cases a Chapman's ice bag may be applied to

the spine for five to ten minutes daily. Electricity is of unquestioned benefit. A large positive electrode should be placed over the cilio-spinal region and the large negative electrode over the lower dorsal vertebræ, and a gentle current of from two to five milliamperes (increased after several sittings to twenty) is passed, lasting from one to five minutes. All changes and interruptions of the current must be avoided. This is to be given every other day. Static sparks may be used as an alternative. Gentle massage is also beneficial in these cases.

Hydrotherapeutics, however, offers the best field for treatment. Full baths at from 85° to 90° F. for from five to fifteen minutes, half baths from 70° to 80° F. from three to five minutes, with gentle friction, or full brine baths containing twenty to thirty pounds of salt, at 85° to 90° F., from five to twenty minutes, are the best. A gentle galvanic current may be combined with the first two with an excellent effect. Russian and Turkish baths are dangerous and to be avoided. These methods separately are usually of little good, but by combining them much good may result.

Such a combination, for instance, as the following: The hygienic rules are laid down and the patient put upon the iron, quinine, and boric acid prescription before mentioned, preferably in tablet form; then a combination of spinal galvanization and full baths for one week, static sparks and half baths another, electric or brine baths and massage the next, varied just as each individual case seems to demand. In all treatment caution, care, and moderation must be observed. Dana truly remarks: "Electrical and hydrotherapeutical applications should be followed up patiently and persistently." Many combinations with resulting benefit to the patient may be made,

and treatment should be changed frequently. Outside of the tonics mentioned I do not put any faith in drugs for this disease.

Locomotor Ataxy.—There are many fallacies existing in the medical mind concerning this disease. There is a prevalent idea among physicians and laity that this disease is incurable, cannot be ameliorated, and that a sufferer from it must at once give up business, his hope of life, and prepare for his voyage with Charon across those dark and gloomy waters. Such is not the true status of affairs. It must be admitted at once that drug treatment is *practically without value*. Of this Dana says: "I doubt if any drugs are of value except silver." Gray remarks: "Clinically there are many cases that may be arrested by treatment," while Gowers is more specific. He says: "It *does not*, as was once thought, deserve the name of *progressive* given to it before the preataxic stage was known and *before the disease was widely observed*. Arrest is frequent, considerable improvement not rare. When the third (last) stage is reached the possibility of improvement is far less, *but not quite absent*. The disease is one in which treatment has a very clear influence, not only in relieving suffering, but in determining the arrest or diminution of the disease." (The italics are mine.)

What a difference from the usual opinion is this!

A thorough examination and a careful diagnosis is a prerequisite, and should include, in my opinion, in every case an examination of the urine and blood. The patient should clearly understand his position and be impressed with the fact that the treatment must be not only daily, but kept up for months if a successful issue is desired. The therapist in these affections must have a long list of remedial measures and be pre-

pared to frequently change the treatment, attacking the disease afresh and from a different side. I would insist upon the *hygienic* treatment. The diet should be plain and wholesome, easily digested, and such articles as slaw, cabbage, rhubarb, heavy pastries, made dishes, and sweets avoided. Nitrogenized food is the best. Regular hours for food and sleep must be observed. Excessive mental and physical fatigue, as well as exposure to cold and falls, should be avoided.

Exercise or exertion must be limited and rest taken. It is a good plan to have such patients retire early, sleep late, and rest before and after dinner. Alcohol, tobacco, and coffee should be forbidden. Sexual excesses are exceedingly dangerous especially upon the optic nerve atrophy.

Of the systematic treatment of the disease, baths, electricity, and massage are best adapted for the relief of the patient and the arrest of the disease. Hydrotherapeutics offers probably the best line of treatment. I have used the following baths and consider them the best:

1. Lukewarm baths from 90° to 95° for five to ten minutes, and to which pine-needle extract has been added.

2. Tepid half and full baths, 75° to 80°, for five to ten minutes, with gentle friction.

3. Heavy brine baths, thirty to forty pounds of salt, 85° to 90° F., five to twenty minutes.

4. Galvano-electric baths, 85° to 90°, five to twenty minutes, twenty-four to fifty milliampères ascending current, are of unquestioned value. Cold douches, vapor baths, Turkish baths, and wet packs are dangerous. As a rule these baths lessen the depression, invigorate the patient, and relieve that indefinable "nervousness" that nearly always exists. Then they are curative, increasing the control over the movements, im-

proving the digestion, lessening the pains, and establishing a feeling of *bienfaisance*. Of the different forms of *electricity* I prefer the frictional. Heavy, direct sparks to the spine, and lighter ones to the anæsthetic area, have yielded excellent results in my hands in relieving the anæsthesia and feeling of constriction.

The galvanic current has been with me less effective than the "static," but an ascending current of from two to thirty milliampères for two to ten minutes is effective in some cases. Massage should be used with caution. I prefer the mechanical form, using it about twice weekly in conjunction with other treatment. *Unfortunately* drugs are of no practical value, except tonics where anæmia exists. If a previous syphilitic history be obtained, or where suspicion exists, moderate doses of kalium iodide, in combination with mercury internally, by inunction or baths, should be tried to "clear the therapeutic field." Small doses of the iodide, from ten to fifteen grains three times daily, are sufficient.

Most writers agree that silver nitrate is about the only drug of any material value in the systemic treatment of this disease. Care should be exercised in its administration. Of those symptoms requiring special treatment the "pains" are by far the most urgent. Hot bandages tightly applied, suspension, narcotic liniments, codeia, and morphia can all be used. The electric baths above mentioned, suspension, and codeia have yielded me the best results. Extreme caution should be exercised in the use of morphia. Phenacetin, antipyrin, antikamnia, and antifebrin may all be used. Chapman's ice bag will often relieve the dull pain and mitigate the exacerbations.

The ataxia can be distinctly affected by suspension lasting from one-half to two minutes, or Bunuzzi's method of flexion may be tried

where no apparatus exists for suspending. From two to three times weekly is sufficient, using other treatment as alternatives.

Anæsthesia is best relieved by the static spark, and the bladder uneasiness and irritability lessened by its local use.

Thus in detail have I sketched that treatment which has afforded me the best results. That chronic diseases are now receiving attention, and chronic sufferers being afforded the relief they desire, is evidenced by the recent writings and pleas of Mitchell, Baruch, Peterson, Dana, and others. In this, as in the preceding disease, a schedule of treatment should be drawn up, placed in the patient's hands, and he be compelled to follow out its instructions. False hopes of speedy cure should not be held out to the patient, but he be made to plainly understand that, while his disease is a very grave one, he is not a hopeless sufferer, and that by patient, steady, and conscientious *work on his part*, constant supervision, direction, and guidance on his *physician's part*, relief from suffering, amelioration of symptoms, and arrest of the disease will probably ensue. There are, in my opinion, no class of sufferers so appreciative of relief as those now under consideration, and sympathy, patience, kindness, and the best efforts of the physician should be directed toward sustaining them in the hour of their affliction. They should be imbued with the fortitude, patience, and strength that are the attributes of humanity, while receiving the most advanced and scientific treatment that the profession can afford.

Spastic Paraplegia.—The conditions of this disease are well understood, and, as in all diseases, the hygienic treatment is of importance. Regularity should be their motto; a life freed as far as possible from depressing influences, with a suffi-

cient amount of exercise and rest. Bicycle riding is suggested by Dana as a convenient and beneficial mode of obtaining exercise, and its use usually attended with some good. A diet wholesome, strengthening, and easily digested should be partaken of. Of the systematic treatment of this disease, *electricity* in one form only has yielded me any results—viz., heavy static sparks to spine, limbs, and contractures, used on alternate days. The other forms and modes of application were useless in my hands. By far the best field is offered by hydrotherapeutics. Three forms I have used for the last year or a half:

1. The simple, prolonged, warm bath at 92° to 95° for from fifteen to thirty minutes or longer, as the case demands. This bath does not seem to be as efficacious as the following.

2. A simple, prolonged bath at 90° to 95° for ten to thirty minutes, through which is passed a galvanic *descending* current just perceptible. The amount of current necessary to be felt will range from twenty to fifty milliampères, but the lesser current of twenty has, in my experience, been of more service.

3. The best treatment, however, is the vapor bath. I commence at 100° F. for ten minutes, at the same time keeping a cooling cap upon the head. Only moderate diaphoresis is produced. Gradually I increase the temperature to 105° F. for twenty to thirty minutes. This is followed by a gentle rain bath at 100° reduced to 85° for one minute (twenty pounds pressure), and reduced later to even 60° . The vapor bath is a solid oak cabinet, in which the head is free, and so arranged that at will a current of electricity may be passed through the body, limbs, etc. It is hardly worth while stating that this cabinet, in sensitive persons, does away with the unpleasant symptoms so often experienced after the ordinary Turkish bath.

The head being free, fresh, pure air is breathed, and any tendency toward cerebral congestion obviated by the cooling cap. This mode of treatment relieves the spasticity, improves the gait, and relieves the patient of that feeling of discomfort that is always present.

After each bath rest must be enforced. It is obvious that this method has great superiority over the ordinary Turkish bath, in that our patient is under our immediate supervision, in the hands of trained assistants, and cannot exercise his own judgment or pleasure. Gentle massage to the limbs is sometimes of benefit, but it has been of little use to me. Suspension I have used with some slight benefit.

The drugs that are suggested have never seemed to help the cases I have seen. Even if a history of previous syphilitic trouble can be obtained, antispecific treatment does not seem to help these cases, and ergot, the bromides, arsenic, or strychnia are only of temporary value.

In conclusion I wish to draw the attention of this Society to several points in this paper. Myelitis does not come under the title of my paper, but on account of its frequency I have introduced it here.

I am more and more impressed each day with the necessity of an extended and exhaustive examination of every case, carrying it as far as sputum, blood, and urine. Resulting benefit and more accurate and satisfactory work will be done if this is followed out, and indications for treatment found which were never suspected. Persistent treatment is absolutely essential, and unless the patient is willing to undergo a thorough course I am not desirous of tak-

ing his or her case. They must be counselled to patience and to endeavor in every way to assist the physician. Weir Mitchell, in an admirable article published lately, pleads for the thorough and systematic treatment of chronic diseases, and his statements are apropos to the subject matter in hand. I never allow patients to take baths away from my establishment. I have tried this and failed. It seems impossible for them to take properly the simplest bath. The temptation to take what to them is most agreeable, regardless of the results, and the lack of precision in duration, temperature, rest, etc., will in the end accrue for bad rather than for good. I have and make rules for these cases and insist upon patients following them out, and it is an essential factor of the treatment. You may have considered me a pessimist in the matter of drug taking, but I am not. Drugs have their place and uses, and I do not hesitate to use them at such times and places; but in chronic diseases, and especially in nervous diseases, their use alone is nearly, in my opinion, useless.

We have no specifics for these diseases, and the sooner the overtaxed stomach is relieved the better. Iron often fails in anæmia for the simple reason that it cannot be assimilated. Yet withdrawal, the use of easily digested food, and hydratic measures soon place the patient in a position to assimilate and utilize this drug.

The position here taken is, I believe, the true position the profession will soon take, and it is only justice to say that the criticism here indulged in is the outgrowth of observation and the result of experience, and is merely stated with the firmness of conscientious belief.

