THE TREATMENT OF EPILEPSY.

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In the British Medical Journal of October 9th, 1920, and again of October 1st, 1921, I published articles giving the results of my treatment of epilepsy, and now I am able to give the results of a second year’s treatment.

At post-mortem examination the first showed an interesting occurrence, which I have already described, and the second was again traumatic. In the frontal region the skull was covered with an old fracture, with a lump of callus on the inner table, which, pressing on the brain, had caused a cup-like depression in the latter. This patient had shown a reduction of 64 per cent, in the number of fits with one year’s treatment. The second case was aged 72, and his record of fits was from 36 to 0 with one year’s treatment.

I have divided the cases into two groups, according to the duration of their epilepsy.

GROUP I. including those patients who have suffered from epilepsy for over twenty years, the shortest period being twenty-one years and the longest thirty-five years. Their ages range from 26 to 57 years. These fifteen patients totalled 2,494 fits during the year, leaving a total of 821 for the second year’s treatment, the total is 494—an average reduction of fully 72 per cent., the lowest individual reduction being 50 per cent. In this group the case of petit mal which I quoted in my last article is again worthy of mention. The year’s results to treatment the patient had 404 fits, during the first year of treatment this was reduced to eighteen, and during the past year he has had three fits, the last being in September, 1921. This group, I think, demonstrates the value of persevering with the treatment in chronic epilepsy.

GROUP II. consisting of cases of less than three years’ duration, one of ten years’ duration, and one of twelve years’ duration, at the time treatment by bromide and borax was commenced. In these three cases the fits, a year prior to treatment, totalled 119. The total during the past year was seven. One of the cases, a man of 62 whose epilepsy was of ten years’ duration before this treatment commenced, had no fits since December, 1920, and after a residence of eight years in the institution was discharged as recovered in July, 1921. He has had no fits since, and his former way of getting his own living. A second case has gone out on pass—he has had two fits during the past twelve months, the last being in March.

The changes to be noted in the condition of the patients are—(1) marked general mental improvement; (2) freedom from stupor after fits; (3) disappearance of irritability and quarrelsome tendencies—marked features of epileptics; (4) complete change of habits—patients formerly of degraded habits are now the reverse.

Numerous excellent results among other epileptic patients could be quoted, but I shall confine my notes to a few only. One case, a mental defective and typically epileptic, who formerly had attacks at regular intervals, has had no fits since August, 1921. The following case is nothing short of miraculous.

T. A., aged 17, used to be confined to bed, did not speak, did not appear to understand anything said to him, had many epileptic attacks both by day and night, had to be fed, was of degraded habits—in fact, could do nothing for himself, and was allowed to remain in a state that was detrimental to his health. Treatment commenced July, 1920, and he had, to begin with, half the adult dose. Very soon his fits were reduced in number and severity, and when blood pressure and pulse were taken in the evening, it was found that the patient was quite out of bed daily. His physical condition is good, he is bright in appearance, answers questions readily, shows a fair amount of intelligence, and has shown a decided change in the work of the ward, and in appearance and behaviour the change is the opposite of the typical epileptic.

Two young patients, aged 17 and 18 respectively, were sent here as epileptic, and have been treated accordingly. So far they have had no fits, and they have now been here one for seven months and the other for twenty months. Another patient, 16 years of age, was admitted last December. Up to
March of this year he had no files, and was then discharged as recovered.

The following case I saw in private with Dr. McMillan of Shotts, and to him I am indebted for the history.

A. B., a female aged 27, began to have fits when she was 17, and they became more severe and very frequent in spite of treatment. In December, 1921, she was put on bromide and borax, and had no fits since. For the past three months she has taken no medicine, and has had no recurrence. This patient complained with small doses of borax and bromide, which were gradually increased, and the combination which brought about the good result in her case was borax purificat. To bromide 10 grains, and Fowler's solution 2 minims, three times a day.

The treatment of the eighteen patients mentioned has been as follows. To begin with they were put on potassium bromide 10 grains, borax purificat 5 grains, and Fowler's solution 2 minims, three times a day. The dose was gradually increased, and I found I obtained the best results with potassium bromide 15 grains, borax purificat 7 grains, Fowler's solution 2 minims, three times daily, and this combination gave the results as stated in the above two groups. In addition the patients had a laxative at bedtime. At present I am trying different proportions of the two drugs from the above way of experiment.

In conclusion, I may say that the continuous treatment has had no deleterious effect on the health of the patients, there have been no gastric or skin disturbances, and, in fact, the general physical condition has improved.

TRAVEL AND APPENDIX.

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The following two cases, which have recently been under my care, raise some interesting points in regard to the etiology of appendicitis, and on that account may be worthy of putting on record.

CASE I.

A. S., aged 18, was playing football on September 30th, 1922, when, towards the end of the second half, he was charged and received a severe blow on the right side of the abdomen from his opponent's elbow, which laid him out for the moment. He vomited, but was able to rise and walk to the dressing room. Whilst changing he vomited again. He then walked about half a mile to a bus, which conveyed him to within a short distance of his home. During this time he was in the abdomen pain in the abdomen was severe.

When he arrived home he lay down, and as the pain got no better he, lay in the evening, called in his doctor, who thought that he must be suffering from appendicitis, but in view of the history decided to wait till the following morning. The diagnosis seemed certain. When admitted to hospital at 2 p.m. the temperature was 10.7°, the pulse 88. The tongue was furred, the abdomen was definitely rigid and tender in the right iliac fossa, the point of maximum tenderness being midway between McBournie's point.

At 7 p.m. Dr. E. N. Nason administered an anesthetic, and the abdomen was opened through a right rectus incision. Omentum presented a pearly, and the quantity of slightly turbid fluid was mopped up, and the appendix was then found pointing downwards on the brim of the pelvis, the vessels deeply engorged, and the organ throughout its length covered with patches of lymph. The appendix was removed in the usual manner and the abdomen closed without drainage.

On recovery he was convalescent, and except that two days after operation a tense swelling the size of a plum was discovered in the region of the right spermatic cord immediately above the testicle. This was diagnosed as a haematoma, and at the time of discharge it had shrunk almost to vanishing point.

On discharge after operations this youth informed me that some two months previously he had suffered from an attack of "indigestion" (pain all over the abdomen and vomiting), lasting for two days and then cleared up. He was positive that when he walked on to the football field he was feeling as well as he had ever done in his life.

CASE II.

H. V., aged 22, at about 1 a.m. on October 18th, 1922, was working on the shift down the pit when he had to put forth a violent effort to push in on to 11th. About three hours later he was seized with sudden acute pain across the lower abdomen, and vomited. He was brought out and sent home, when he vomited again three or four times, and the pain continued to be severe. At 9 a.m. he was seen by his doctor, who advised his admission to hospital, but as "his people were not willing" he refused. However, at 6:30 p.m. on the following day he was admitted. The temperature was 99.8° and the pulse 83. He complained of severe pain in right side of the abdomen.

On examination there was tenderness all over the lower abdomen, with increased rigidity; tenderness was very marked over McBournie's point. An anesthetic was administered by Dr. Bradbury, and at 8:45 p.m. the abdomen was opened by a right rectus incision, and a short, stumpy, acutely inflamed appendix, buried in adhesions, was found behind the caecum. About half a drachm of pus free in the peritoneal cavity was sponged out and the operation completed in the usual way, the abdomen being closed without drainage.

He had had a troublesome cough previous to the present illness, and this somewhat complicated his recovery, as he coughed open the skin wound. In other respects convalescence was uneventful.

In both of these cases the attack was definitely ushered in by violence—in the one by a direct blow on the abdomen, in the other by a severe strain. An intriguing point in both cases is their bearing on the Workmen's Compensation Act. In the first case, of course, that question did not arise; but supposing it had, I do not think that compensation could have been withheld, even allowing that the patient had had a previous attack, the onset being apparently so definitely the result of the blow. In the second case the influence of trauma is more debatable.

I am looking through my notes that I have dealt with one other case allied to these. It occurred at Scapa Flow in 1916. A boy, aged 16, from H.M.S. Conqueror, was kicked on the right side of the abdomen. He was admitted to hospital, and two days later with tenderness and rigidity in the right iliac fossa, but the temperature was normal. He removed a very long and congested appendix. This case would probably have cleared up without operation.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE VARIATIONS OF NORMAL TEMPERATURE.

A PAPER OF Dr. E. Clark-Jones's article (British Medical Journal, November 25th, 1922, p. 1026), that ignorance obtains as to what constitutes a normal temperature, leads me to record my investigations as to the normal body temperature in March and April, 1822. I found that thermometers differed by as much as a third of a degree, and selected one which recorded the mean of six as I was unable to procure one with a Kew certificate of accuracy.

I made 173 records of my mouth temperature at intervals of an hour or two during a period of twenty-one days in April, 1822, and, averaging each period, I obtained the accompanying chart. A. I was led to do this because in the previous

[Graphs A and B showing temperature curves]

March, during training for the Hospital Rugby Cup final, I had been trying to find out the effect of exercise on the temperature, with some astonishing results. I found that the effect of slight exercise was to raise the body temperature slightly for a short time until perspiration began. When, if the exercise was continued, there was a continuous fall, and a few days before the final cup tie after a two hours' run took my mouth temperature was 94.6°; Chart B shows the rise afterwards at successive five-minute intervals. At the commencement of vigorous training on March 6th that year after one hour's run I recorded 95.4°, and after half an hour's interval it had risen to 99.1°, and did not return to normal till four hours afterwards. The effect of training was to diminish that rise until it was not perceptible, although the fall was greater.

On March 8th, after one hour's run, I discovered that the urinary temperature was three degrees or so, while the mouth temperature at the same time, being 95.7° while the mouth was 95.7°, and when I recorded the mouth temperature of 94.6° the urinary temperature was 95.9°.