

trace of a sella turcica, but a glandular body was found resting upon the body of the sphenoid as in 1; the size was approximately the same and the structure similar. No trace of the brain stem above the level of the medulla was present.

3. Small male anencephalic foetus about two-thirds the size of a normal full-time foetus. The eyes were very prominent, especially the right. The gland in this case was smaller; it corresponded in structure with that of 1 and 2, and its location was similar.

4. Male anencephalic foetus about the size of a normal full-time foetus. The eyes were prominent. There was a moderate amount of adipose tissue. The base of the skull was covered, as normally, with loose vascular connective tissue with a very thin superficial covering of neuroglial nervous tissue. Amongst the dark vascular tissue a tongue-like projection of neuroglial tissue, somewhat irregular in outline, projected from the superficial neuroglial layer in the direction of the glandular portion of the pituitary body, which was found in the usual position. The glandular portion showed the same structure on microscopic section as in the previous cases.

PURPURA TREATED BY INJECTION OF HUMAN BLOOD.

BY
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The unflinching success of the treatment of haemorrhage of the newborn by injection of parental blood suggested to me the use of the same method in purpura. The result has been most encouraging, and I venture to hope that in this method of treatment, applied at the very onset of the disease, we have a sure way of curing it.

I have injected 2 to 5 c.c.m. of blood, taken from the brachial cephalic vein, into the gluteal muscles. Clotting is prevented by sterilizing the syringe and needle in a solution of magnesium sulphate. I have used the method in four cases, with gratifying results in all, and in the very early cases (III and IV) with complete abortion of the attack.

CASE I.

S., a boy aged 4 years, had been ill some five weeks before I saw him, so that the improvement was not so startling as in the other cases, which I got early; but the parents maintain with confidence that the injections saved the child's life, and that is also my opinion.

He was taken with pains in the legs early in February, 1920, whilst out walking, so that on two successive days he had to be carried home. After his bath his legs were tender, and he cried when they were rubbed with the towel to dry them. Purpuric spots appeared, and there was swelling of the face. A fortnight later the child had severe colicky pains in the abdomen, especially at night, and melaena was noticed. Absolute anorexia supervened, leading to acidosis, which was relieved by rectal injections of Mellin's food. A daily wash out of the colon was prescribed as the stools were so foul. Once a bowel cast of mucus was passed, and this was followed by complete relief of the colic for four days. There was often melaena and frequently haematuria. Purpuric spots appeared regularly. The child was very ill, wasting, and listless.

On March 14th I gave the first injection of blood (paternal). A definite amelioration of the child's condition resulted. On March 27th the second injection of blood (maternal) was given. This again led to benefit, and by the end of April the patient was convalescent. In June all symptoms had disappeared, except that some purpuric spots appeared on the legs if the child did not take an afternoon rest.

CASE II.

C., a man aged 60 I had watched in the past in many attacks of subacute purpura, with visceral pains, which had yielded to horse serum administered by the mouth. On March 19th, 1922, he had had one week's epistaxis, and there was a subcutaneous haemorrhage on the right calf. One injection of blood (the son-in-law) resulted in cure.

On August 4th there was a subcutaneous haemorrhage on the leg, and a subconjunctival one too; the injection had the same good effect.

CASE III.

W., a girl aged 3, was brought to me on March 31st, 1922, by her mother with an extensive outbreak of purpuric spots on the buttocks, thighs, and legs. I gave maternal blood at once. On April 3rd a few spots appeared over the biceps of the arm. On April 7th there were a few on one leg and slight epistaxis. After this there was no further trouble.

CASE IV.

K. P., a girl aged 6, was brought to the surgery on September 6th, 1922, with purpuric spots on buttocks and legs (which had been present three days) and swelling of the right knee. There were pains in the knee and legs, and the temperature was 101°. Maternal blood was given at once. On September 8th there was a small haemorrhage on the left forearm. On September 9th paternal blood was administered. There were no further symptoms.

FURTHER NOTES ON 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 the treatment of epilepsy by potassium bromide and borax after four and twelve months respectively. At the end of the second year's treatment I append the following notes on eighteen male cases, and I have chosen these because their history as regards fits, before treatment, is definitely known. I had hoped to quote twenty cases, but two died before the second year of treatment was completed—one of pulmonary tuberculosis and the other of cerebral haemorrhage. At *post-mortem* examination the first showed an interesting condition, which, I think, indicated that the epilepsy was traumatic. In the frontal region of the skull there was evidence of 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 includes fifteen 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 1,886 fits in the year before treatment. At the end of 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 prior 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 consists of three cases—one of six 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, has 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 recurrence, and is now earning 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, 1922.

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 always in a state of stupor. Treatment was commenced in July, 1920, and he had, to begin with, half the adult dose. Very soon his fits were reduced in number and severity. He is now much improved, seldom has a fit, and is out of bed daily. His physical condition is good; he is bright in appearance, answers questions readily, shows a fair amount of intelligence considering his opportunities, assists in the work of the ward, and in appearance and behaviour is the very 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