granting that they are growths of the nerve sheaths, are not accompanied by any new growth of nerve fibre itself, but I think in the light of this case that this opinion will have to be modified. I am quite aware, of course, that this contention must stand or fall by the accuracy of Purves Stewart's work and deductions, but having seen a good number of his specimens demonstrating what he claims to be various stages in the development of the new fibre I certainly regard his work as completely convincing.

Bentinck-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF PURPURA HÆMORRHAGICA.

BY WALTER H. HAW, M.R.C.S. ENG., L.S.A.

THE case of purpura fulminans reported in THE LANCET of June 20th, p. 1740, appeared just at the close of a case of the above disease which had occurred in my practice, unfortunately with a fatal result. In my case the history pointed clearly to the causation—namely, a combination of immersion in cold sea-water, fright, shock, and sea-sickness. Which of these antecedents is to be regarded as the *pons et origo mali* I cannot presume to determine, but fright and shock appear to have been present in greatest degree. The very interesting part of the case is that the patient, who was a boy, was looked upon by his parents as possessing the very essence of good health; he was of sturdy build, strong, hearty, and had never had an illness in his life until the onset of this his fatal attack immediately following the accidents which will be mentioned.

On June 13th, 1903 the patient was brought to me by his father who stated that he could not make out what was wrong with his boy, as he seemed to be "falling to pieces." He had been in his usual good health until 14 days previously, when while in a canoe on the bar at the entrance to the harbour he was capsized and in addition to a very cold wetting he had received a great fright, for it is a very dangerous spot. He appeared none the worse, however, and a week later, while descending a hill on a bicycle, he ran into a herd of cattle and had a fall, hurting himself rather severely but only to the extent of bruises. Apparently he recovered from this without ill result and some days later with his father he crossed the bar of the harbour for the first time in his life in an ordinary fishing boat, a feat which requires unlimited confidence and nerve. His father said that he suffered severely from fear and later from sea-sickness during the whole time they were at sea. After this final experience he was not himself and suffered first from cramps and then from epistaxis. When I first saw the patient he was pallid, waxy-looking, and had a peculiar flush on the cheeks, and there was a blood clot blocking the left anterior nostril. On his neck, chest, abdomen, arms, and thighs there were numerous discrete purpuric spots, the largest seen not being greater in diameter than a buckshot. He also suffered from insomnia, fatigue after slight exertion, a constant shivery sensation, tachycardia, anorexia, and a slimy feeling in the mouth. The tongue and conjunctivæ were pale, the temperature was normal, and there was dulness in the splenic area as far forward as the edges of the cartilages. On the next day epistaxis commenced and I plugged the left nostril with a petticoat plug. The motions were black. On the 15th the spots were more marked on the abdomen and the chest. The plug had at once stopped the hæmorrhage and I did not remove it until the next day, when the bleeding began again and the plug had to be re-inserted. On the 17th there had been no further bleeding. On the 18th epistaxis began from the right nostril which was successfully plugged. Both nares were now blocked and breathing had to be accomplished by the mouth. The anæmia was profound. On the 19th matters were going on well and continued so until July 3rd when epistaxis again started and necessitated plugging. At this time I first noticed puffy œdema of the face, the hands, the legs below

the knees, and the feet, but there was no albumin in the urine. I may mention here that during each attack of epistaxis the cardiac action became quite violent, pulsation being visible over the front of the chest and also along the carotids, and also that before I discontinued my visits on June 21st the splenic dulness had disappeared. On July 3rd it had returned and the patient's general condition was evidently more grave than it had ever been. The purpuric spots also had broken out afresh. Later vomiting began, chiefly of blood clots which had been swallowed during the attacks, but it was checked by tincture of iodine. There was no further epistaxis but when I visited the patient on the 4th he was moribund and he died peacefully from heart failure in my presence. It is noteworthy that the œdema had greatly lessened.

These were the salient features in this case and I think that the etiology is very clearly indicated but what pathological condition was brought about by the precedent factors is difficult to determine. The tachycardia might suggest an irritation of the sympathetic system. I may add, in conclusion, that the blood in the later stages was very pale and watery but it still clotted fairly firmly.

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TAPEWORM AS A CAUSE OF CHOREA.

BY RONALD D. HODGE, M.B., CH.B. GLASG.

IN view of Mr. J. A. W. Pereira's clinical note on Tape-worm as a Cause of Chorea which was published in THE LANCET of Sept. 19th, p. 824, I think the following case will prove of interest.

On August 10th, 1903, I was sent to visit a young girl, aged nine years, whom I found resting in a semi-recumbent position with flushed cheeks, circumoral pallor, and a somewhat anxious look. She had been ill since the previous day and on examination of the chest I detected a slight to-and-fro friction sound between the tricuspid and apex regions of the heart. This sound was markedly increased on steady pressure with the stethoscope. There was also a long, soft, blowing systolic murmur heard most distinctly at the apex and also well heard over the tricuspid and pulmonary areas and conducted into the left axilla and to the lower angle of the left shoulder-blade behind. On the pulmonary area the second sound was reduplicated. The apex beat was within the vertical nipple line in the fourth left interspace. Her temperature was 102.5° F. and her pulse was 120 per minute. There was no history of rheumatism but there were a doubtful history of "growing pains" and a distinct one of chorea 14 months previously when she was attending the out-patient department of a public hospital. So far as the patient's mother knew there was no cardiac complication at that time. Although there were no choreic movements present I thought it as well to warn the girl's friends that the chorea would be likely to return, which it did in five days when the pericarditis had disappeared and the temperature and pulse had fallen to nearly normal. On the second day after the choreic movements became evident there were slight pain and swelling of both knees and ankles lasting for two days. The movements became gradually worse until the patient was unable to feed herself, but she was still able to swallow, while if questioned she made an effort to answer but would finish up with a fit of either crying or laughing. By Sept. 14th the girl was so much improved that she was able to get up and to go about.

On the 21st the mother informed me that the girl had that morning passed several pieces of tapeworm and on inquiry I learned that 15 months previously when attending hospital for chorea she was also troubled with the parasite, in proof of which I was shown the remains of the emulsion of filix mas which had been ordered; also that 18 months previously pieces of tapeworm were voided unaccompanied by chorea. Unfortunately, when the cestode was passed on the next afternoon the head could not be found, although the part examined had broken off well up towards the head, judging from the very small size of the segments. The anthelmintic was repeated in two days' time but although the motions were carefully searched the head was not found. Considering that the treatment was the same as that which proved successful in dislodging a tapeworm from an adult woman three months before it is possible that the head escaped notice.

Now what is the prime etiological factor in this case?