the tonic or hæmatic plan of treatment be adopted at an early period of the attack.

The length to which this paper has extended prevents the further narration of cases illustrative of the effects of treatment founded on the foregoing principles. I shall, however, refer to this part of the subject on another opportunity. I may state, in the meantime, that during the year, twenty-one cases of the acute form of the disease were admitted, the average duration of which was thirteen days, that is, from the commencement of the pains till their complete subsidence, and perfect ability of the patients to leave their beds.

The average duration of the disease before admission being six days,—under treatment seven days. Average residence in the Infirmary nineteen days. It has been my rule to keep the patients at least one week in the ward after complete recovery, with the view of preventing either a relapse, or the development of the peculiar morbid diathesis. The greater number of the patients belonged to that class of society in which want and privation abound. The majority were compelled, as soon as dismissed, to resume occupations which exposed them to the exciting causes of the disease. To dismiss such patients until they are safe from the risk of relapse, I hold to be a very improper proceeding.

IV. *An Unusual Case of Popliteal Aneurism.* By JOHN D. MUTER, Esq., Fellow of the Faculty of Physicians and Surgeons, Glasgow.

Aneurism occurring in both legs—Spontaneous cure in left—Ligature of Artery in right, after failure of compression—Cure.—June 1st, 1853.—Mr. —, aged 37, a tall, athletic, healthy-looking man, applied to me on account of a small tumor which he had noticed a few weeks previously in the popliteal space of the left leg. The tumor had appeared soon after he had run a long distance for a wager. It was about the size of an ordinary walnut, and pulsated strongly. The leg was slightly cedematous. On compressing the femoral artery at the groin, the pulsation in the tumor instantly ceased; it became flaccid, and could be handled without pain; but on removal of the pressure, it instantly sprang up, pulsated vigorously, and was excessively painful. On applying the ear or stethoscope over the tumor, a loud blowing sound was heard to accompany each pulsation. I explained to the patient the nature of his disease, and wished him to confine himself to bed, and make trial of pressure. Without my knowledge, however, he went to the country, and travelled a long distance to consult a "bone-doctor," by whom the limb was

submitted to a good deal of manipulation. Soon after this the leg became cold, numb, and weak, so that the patient was alarmed, returned to town, and applied to me once more.

On examination I found that the pulsation had *decreased* greatly, that the tumor felt much firmer than formerly, and at the same time the pulsation in the posterior tibial artery at the ankle was barely perceptible, showing that there was an obstruction to the stream of blood, preventing it from passing freely in its direct channel. The patient was advised to remain in bed, and the limb was enveloped in flannel. In the course of a few days more the tumor had entirely *ceased to pulsate*; it had become quite solid, and was without any pain, whilst about the knee several vessels could be felt pulsating strongly, and evidently larger than in the normal state. In the course of six months the tumor had entirely disappeared, but the leg continued for a long time thinner and weaker than the right leg.

In this case, then, the aneurism, which undoubtedly existed, underwent a spontaneous cure. There are many such cases on record, although, in proportion to the number of aneurisms, such a fortunate termination is rare. Among the last published cases I have noticed, is one by Professor Syme of Edinburgh, which resembles the one now related. "The patient had come nearly 200 miles, and was kept quiet in bed with restricted diet, and gentle aperients to prepare him for the operation. In the course of a day or two from the time of his admission (18th November), the aneurismal pulsation became much less, and could not be felt at all on the 23rd, when the tumor was observed to be greatly reduced in size, and no longer the source of any uneasiness."* The probability is, that in such instances nature effects a cure in the manner described by Hodgson as the most usual. "The blood which enters the sac soon after its formation," remarks that author, "generally leaves upon its internal surface a stratum of coagulum, and successive depositions of the fibrinous part of the blood diminish the cavity of the tumor. At length the sac becomes entirely filled with this substance, and the deposition generally continues in the artery which supplies the disease, forming a firm plug of coagulum, which extends on both sides of the sac to the next important ramifications that are given off from the artery. The circulation through the vessel is thus prevented, the blood is conveyed by natural channels, and another process is then instituted, whereby the bulk of the tumor is removed, and the surrounding parts are enabled to resume their natural functions."†

In the commencement of October, 1854, the same person presented himself to me with a tumor in the popliteal space of the *right* leg, as large as an orange, and having, in a very marked degree,

* Edinburgh Medical Journal, January, 1851.

† Hodgson on the Arteries, 1815.

all the characteristic signs of an aneurism. This tumor had been noticed by the patient about three months previously. It had increased rapidly, and the thinness of its summit showed that the danger of bursting was imminent. The patient attributed this tumor, as well as the former one, to his running exploit. There was no sign of disease in the heart or large vessels, and his appearance was not that of one who had led an intemperate life. On account of the peculiarity of this case, I called in consultation Drs. Andrew Buchanan and Lawrie, both of whom, after a very careful examination, confirmed the accuracy of the diagnosis in the former as well as in the present case, and advised a careful trial of pressure. Accordingly, the treatment was commenced with Cartes' circular compressor on the 13th October. I had two screws instead of one fixed to the same sole-plate, a little apart from each other. The pads were placed over the artery below the origin of the profunda. One pad was then screwed down so as to arrest the pulsation in the tumor, and when pain was produced the second pad was screwed down before the first was relaxed. In this way, and by shifting the apparatus a little higher or lower, very effectual pressure was kept up. The patient soon became dexterous in the management of the instrument. At first the pressure could be endured for four or five hours only, but after a few days it could be borne for ten or twelve hours. Notwithstanding, however, the determined and intelligent perseverance of the patient for nearly two months, no perceptible change took place in the tumor. I now kept up the pressure for twenty-six hours continuously, and with my own hands, being exceedingly anxious to effect coagulation by this means; but on removing the instrument at the end of the time mentioned, the pulsation returned as before. The patient now complained most bitterly of the pain, restraint and annoyance of the pressure, and earnestly begged to have the operation performed. I gladly consented, being sorry for the pain, &c., to which he had been so long subjected. After waiting till the parts which had been injured by the pressure had sufficiently recovered, the superficial femoral was ligatured in the usual way on the 17th December. No untoward symptom followed: the ligature came away on the twenty-first day after the operation, and the patient was soon able to attend to his usual occupation.

This was a very satisfactory termination of a case wherein pressure had been so long and so vigorously tried, for it is well known that the operation, *after* the pressure, has been followed in several instances by the most serious results.