

relation gives indications of having divided the inheritance with her.

She confessed that she had often felt throbbing in the body, and pain there, and also in the back on the left side, but she had made no complaint about the matter to her medical attendant, and fulfilled her usual social and domestic duties until she was, one day in February, 1878, attacked with severe shivering, and a sense of severe malaise. On the following morning I found her temperature  $102^{\circ}4$ , and on searching for the cause of the pyrexia I discovered a pulsating tumor, painful, situated behind, above, and to the left side of the umbilicus; there was a loud systolic bruit heard over the tumor, and in the course of the common iliacs; the bruit was heard with the stethoscope in common use, and also very distinctly with Spencer's differential stethoscope, which can be used without any pressure; there was also a bruit heard close to the vertebral column on the left side; pressure on both external iliacs greatly increased the pulsation, and so distressed the patient that I received a decided impression that it would not be advisable to repeat the experiment; the throbbing was also greatly increased by any exertion, and by any excitement or emotion; the transverse colon could be felt crossing the tumor, and when distended with flatus it gave rise to very distressing increase of throbbing. The pulse varied from 72 to 100, usually about 84; at the wrist it was full, compressible, but with a considerable degree of tension, and it had the same character in the carotids and iliacs. There was a moderate degree of anæmia, and a worn, distressed appearance of the countenance. No vomiting, appetite very small, digestion weak, bowels relieved by enemata; sleep very much disturbed and scanty.

The case was seen by several professional gentlemen, and independently by Mr. J. W. Teale of this town; they all agree that the case was one of abdominal aneurism.

The patient was put upon Tufnell's diet, and kept perfectly at rest in the horizontal position. During this treatment, and at the commencement of it, the urine was examined several times; specific gravity usually about 1026—at first no albumen, in about one month just a trace of albumen, and after that no albumen at any examination; at the end of two or three months of Tufnell's treatment the daily average of urine was about one pint three ounces. The temperature soon fell to normal, and there was no other cause discoverable to account for its rise; during the progress of the case the temperature only very occasionally rose to  $101^{\circ}2$ , as from any emotional excitement, and also during a distressing toothache from a necrosed tooth.

At the end of five months of this treatment, which was carried out by the patient and attendant most conscientiously and rigidly, there was no improvement in any way; the tension of the pulse remained the same, and the throbbing of the

tumor had rather increased, so that under any excitement, as, for instance, during a thunderstorm, it quite shook the bed; the sensations of the patient and my own observations began to prepare me to expect the worst.

There were reasons for abstaining from the use of large doses of iodide of potassium, so I did not try it. After careful consideration I selected chloride of barium as a probably useful remedy, and began to give it in doses of one-fifth of a grain three times a day; after three or four weeks I increased the dose to two-fifths of a grain, and, with the exception of a very short trial of three-quarters of a grain, I kept to two-fifths of a grain during the remainder of its administration. Within a fortnight of the use of the chloride there was a very marked diminution of throbbing both to the sensation of the patient, and by my own observation; after five weeks use of it the patient was able to bear the removal of a necrosed molar tooth (which had for a few days given rise to neuralgia in the head and to distressing face-ache) without an anæsthetic; the tooth was, of course, not firmly fixed, but I should not have dared to allow its extraction previous to the administration of the chloride; and after nearly five months continued use of the same remedy the tumor was so reduced that it could scarcely be felt, and only a faint systolic murmur could be heard. At the present time, four or five months since the discontinuance of the chloride of barium, there is still a slight systolic murmur, but no throbbing; the pulse is about 72, and has entirely lost its unnatural tension.

Mr. J. W. Teale has recently seen the case again, and he expressed himself highly gratified with the change in the patient's state. So that testimony can be borne by an independent trustworthy practitioner to the accuracy of the diagnosis in the first place, and to the reliability of the improvement.

It will now be interesting to examine into the *modus operandi* of the drug. According to the experiments of Boehm (Ziemssen vol. xvii. p. 377) it would appear that the salts of baryta in overwhelming doses paralyse the heart and blood-vessels; but that in more moderated doses they stimulate or irritate the heart and blood-vessels, so that the pulse is made more rapid, and the blood-pressure very greatly increased. What are the doses which will produce the opposite results is not very certain. A poisonous dose of the chloride is half a grain; Ringer puts the dose at from half a grain to a quarter of a grain, but in the edition I have he does not state for what purpose. Hammond gives doses of three-quarters of a grain three times a day in multiple spinal sclerosis—as a nervine stimulant I suppose. I have myself taken about one grain three times a day for several weeks with a very marked stimulant effect. So that I should expect the stimulant dose to be somewhere near one grain, and the paralyzing dose nearer two drachms. The dose I