

the youth, the situation and character of the swelling, and the history of the case, the opinion was formed that it was one of a limited acute periostitis with localised abscess, such as is known sometimes to occur. This turned out to be incorrect; but, considering the vague and misleading signs that presented themselves on examination, it is doubtful whether a correct diagnosis could have been made at this stage. When the incision was made into the swelling, shortly after the patient's admission, and it was found to contain nothing but turbid serum and some dark blood-clot, suspicions were naturally aroused, but nothing definite could be arrived at beyond the fact that there had been an extravasation of blood into the limb, lying chiefly behind the femur, and that what little blood flowed was dark and venous in character. And it may here be remarked, in passing, that, in cases presenting clear signs of lesion of a bloodvessel in the popliteal space following injury, it is almost certain to be the artery which has given way, and not the vein. Whilst injury to the artery without implication of the vein is the rule, especially in incomplete rupture, no record of any case in which the vein alone suffered can be found in the English medical journals for the last thirty years—an immunity which may perhaps be explained by reference to its anatomy.

With respect to the treatment of this accident, the most satisfactory method appears to be that of cutting down on and tying the ends of the ruptured vessel, in both the incomplete form and also when complete, if the case be seen before gangrene has become inevitable. It is true that distinguished surgeons have occasionally, but I think very rarely, failed to find the ends of the vessel amid the mass of blood and debris.² But in favour of this operation it may be said—(1) that it places the patient in the safest condition possible as far as the risk of any recurrence of the hæmorrhage is concerned; (2) that by early clearing out of the masses of clot &c. from the popliteal space a potent factor in the production of gangrene is removed—namely, the pressure on the collateral circulation; and (3) that, if gangrene should unfortunately ensue, amputation can easily be performed, with a scarcely diminished prospect of success. In partial rupture ligature of the femoral has been advocated. But the objection to the operation appears to lie in this, that if with an enfeebled circulation in the limb, such as must be present with a partially ruptured popliteal artery, the femoral is ligatured, the risk of gangrene would surely be as great or greater than if the vessel were cut down on and tied. And, as a matter of fact, out of eight recorded cases in which this operation was performed for partial rupture, gangrene of the limb ensued in six. And, again, if after ligature of the femoral the collateral circulation became sufficiently established to ensure the vitality of the limb, there would be every probability of further leakage from the injured vessel. In conclusion, I would draw attention to the simple method by which the intra-venous saline solution was injected, and to the very gratifying result obtained therefrom; and also to the fact that on leaving the hospital the boy seemed none the worse for the substitution of a pint and a half of salt and water for the arterial blood lost.

Nottingham.

ABDOMINAL ANEURYSM TREATED BY TUFNELL'S METHOD AND IODIDE OF POTASSIUM; RECOVERY.

By JOHN ROSS, M.B.

IN the beginning of June, 1888, I saw Mrs. S—, aged twenty-one. She complained of a lump, pain, and throbbing in the epigastrium. The pain was not acute, but dragging, and of an oppressive nature. She did not think much of these symptoms, and was doing her usual household duties in the ordinary way. Her health was otherwise good. The above symptoms had been gradually coming on for the previous six months; they began shortly after or about the time she was nursing her husband, a big, heavy man, who had been suffering from pleurisy and was laid up for two months. During this period she was the sole attendant, and had to move him in bed every time he required it. She was a

fairly built, small woman, well nourished, but spare and wiry. On examination I found a distinct elastic pulsating tumour in the middle line of the epigastrium, the upper part slightly overlapped by the ensiform process. The tumour was about three inches in length, and of the circumference of an ordinary-sized orange. There was no difficulty in getting the hand over and partly round the tumour, as the abdominal walls were thin and flaccid. This was especially easy after the first two days of treatment. When the hand was so placed, distinct pulsatile expansion was experienced. On auscultation a systolic murmur was audible over the tumour. There was slight pain on pressure, especially at a spot on the left side of the tumour. The previous history was good; she had never had any illness that confined her to bed for a day that she could remember. There were no signs or history of syphilis.

The management of the case presented a difficulty. Her husband (a mason) was away working in Natal, she had no relatives in the town, and there was only one person, a woman, whom she knew at all intimately. She did not consider that there was much the matter with herself, and thought that a little medicine would be sufficient to make her well. She was naturally sprightly and industrious. Under these circumstances I had some misgivings about telling her suddenly of the seriousness of her case, but told her that she would have to keep in bed for some weeks. She was much surprised at the treatment proposed, and seemed to think I was treating the matter too seriously. It was therefore difficult to persuade her to submit to treatment, and when she yielded it was in a doubting, half-hearted manner. I mention all this because I think that under better conditions the treatment would have proved beneficial in a shorter period, and to show that even in adverse circumstances there is good reason to persevere. The treatment was absolute rest; Tufnell's diet; iodide of potassium (fifteen grains) and tincture of aconite (five minims) thrice daily; and the bowels to be attended to.

A week after the treatment was begun the pain was much relieved, and the tumour was decidedly firmer. A fortnight later, on calling unexpectedly, I found the patient sitting up in bed with her child beside her; she had no doubt been lifting it. I found no further improvement in the symptoms. Her friend, who was in at the time, then said there was no use deceiving me, and that the treatment was not being carried out as directed, as far as the absolute rest was concerned. I then determined to tell the patient the very serious nature of her illness, and told her that if she was not very careful she might die at any moment. After this I have no doubt that the treatment was carried out fairly well. A week afterwards the tumour was quite hard, and the expansile pulsation had disappeared, as had also the systolic murmur; but there remained a pulsation like that of the radial pulse down the median line of the tumour, as well as a pulsating spot on the left side of the tumour. This was the state of things when I left the colony two months afterwards.

On Dec. 30th Dr. Savage, whom I left in charge of the case, wrote: "A fortnight back I saw Mrs. S— and found everything normal; no swelling or tumour, and no pulsation. I did not vary the treatment, except once when the pulse got irregular, and I then gave her a little digitalis. She had been up for six weeks. She does not exert herself." A fortnight later he wrote: "I cannot tell you how Mrs. S— is, as she has gone to East London,"¹ from which I concluded that she was still well.

On April 25th, 1889, I received the following concerning the case of this patient from Dr. Savage: "Mrs. S— has gone to Natal. I got her to see Dr. Mackenzie, of Durban, who thinks she has entirely recovered." This is dated March 31st, 1889. Natal is 350 miles from King William's Town, and the sea voyage to it is a very rough one, and entails the crossing of two of the worst bars on the South African coast. I think that this test by an exceptionally rough passage is about as severe a legitimate test as any case of the nature could have been put to. I am sure that those who know anything of the voyage, even under the most favourable circumstances, will agree with me.

I think this case well illustrates what the above treatment can do, if only sufficient patience be exercised. The patient was in bed from the beginning of June until the end of October (five months).

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² Poland: Guy's Hospital Reports, vol. vi., 1860.

¹ About forty miles from King William's Town.