A case of extensive cirsoid aneurysm of the scalp / by A. Ernest Maylard, M.B., B.S., Lond., Surgeon, Victoria Infirmary, Glasgow.

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A CASE OF EXTENSIVE CIRSOID ANEURYSM OF THE SCALP.

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This case seems of peculiar interest in that while occurring in a region where "aneurysm by anastomosis" is most commonly met with, the tumour was of unusually wide distribution, involving nearly the whole scalp.

EXTRACT OF REPORT TAKEN BY DR. JAMES M'HAFFIE.

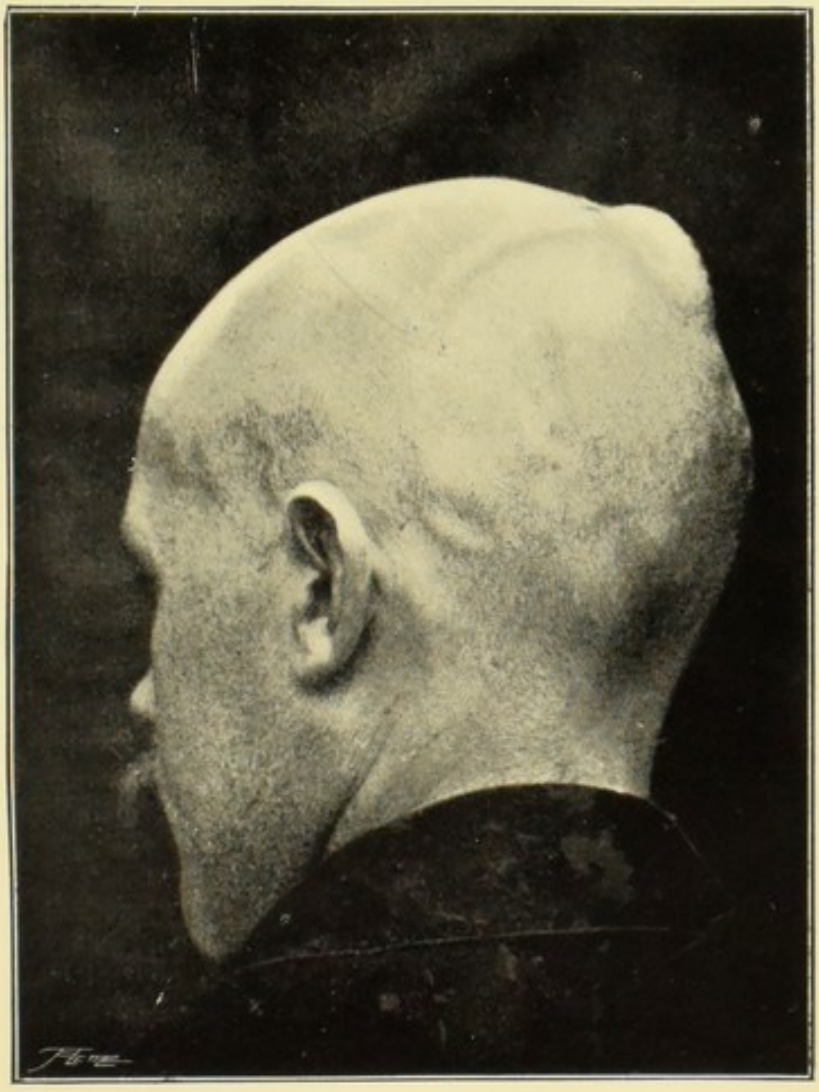
T. M., aged 32 years, was a patient of Dr. Tawse, of Whitehaven, Cumberland, by whom he was sent into the Victoria Infirmary. About nine years ago he noticed a small red "warm" patch on the back of his head. At this time it caused him neither pain nor inconvenience, and his attention was not particularly directed to it until his haircutter told him that he had a tumour on his head. More recently it had become a distinct source of trouble to him, causing at times shooting pains and a throbbing sensation. Three weeks ago he felt a slight roughness on the surface of the tumour, and in attempting to scratch it off with his finger nail a quantity of blood suddenly escaped. He is unable to give any distinct history as to the cause of the tumour except that he states he once injured the back of his head with a nail.

After shaving the head the following conditions were found. Over the region of the posterior fontanelle there exists a soft, slightly pulsatile swelling, projecting for about half an inch above the surrounding surface of the scalp, and extending

over an area two and a half inches in diameter. Towards its periphery it shelves off into the neighbouring tissues except where it is connected with dilated vessels. On the surface of the tumour the skin is in places exceedingly thin, and appears as if at any time it might give way. At one spot is seen the cicatrix of the recent rupture. Pulsation is very marked. Pressure empties the tumour to a considerable extent.

FIG. 1.—Cirsoid aneurysm of the scalp. Diagrammatic representation of the tortuous and dilated vessels passing to the tumour.

On examining carefully the other parts of the scalp, numerous dilated and tortuous vessels are seen passing upwards from the basal portion of the vault towards the tumour. Some can be plainly traced into the growth, while others disappear short of reaching it. The common feature of all these vessels is their tortuosity, more marked, however, in the arteries than in the veins. These enlarged vessels appear to be the normal vascular channels of the scalp. Thus, on the left side of the head (see Fig. 1), both temporal vein and artery are involved; on the right side (see Fig. 2) also the temporal



Cirsoid aneurysm of the scalp. (From a photograph by Dr. Watt.)

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vessels, but in addition the supra-orbital vein and the posterior auricular vein. This last proves the largest connecting branch of the growth, so large and tortuous indeed is it, as it passes from the tumour, that it seems as if it formed a true prolongation outwards of it. On the occiput all four occipital vessels are involved, and from the right occipital artery a distinctly tortuous and pulsating branch passes upwards and outwards.

FIG. 2.—Cirsoid aneurysm of the scalp. Diagrammatic representation of the tortuous and dilated vessels passing to the tumour.

Remarks.—Notwithstanding these numerous enlarged and visibly pulsating vessels, the man never seemed to have been conscious of them, the existence of the tumour alone troubled him. Indeed it was only on shaving the head that he became aware of their existence. We found that digital pressure applied to the arteries at their basal origin completely stopped all pulsation in the tumour, and it was this effect that led me to consider the advisability of attempting to excise the growth rather than try any less radical measures.

The first stage of the operation was performed on Novem-

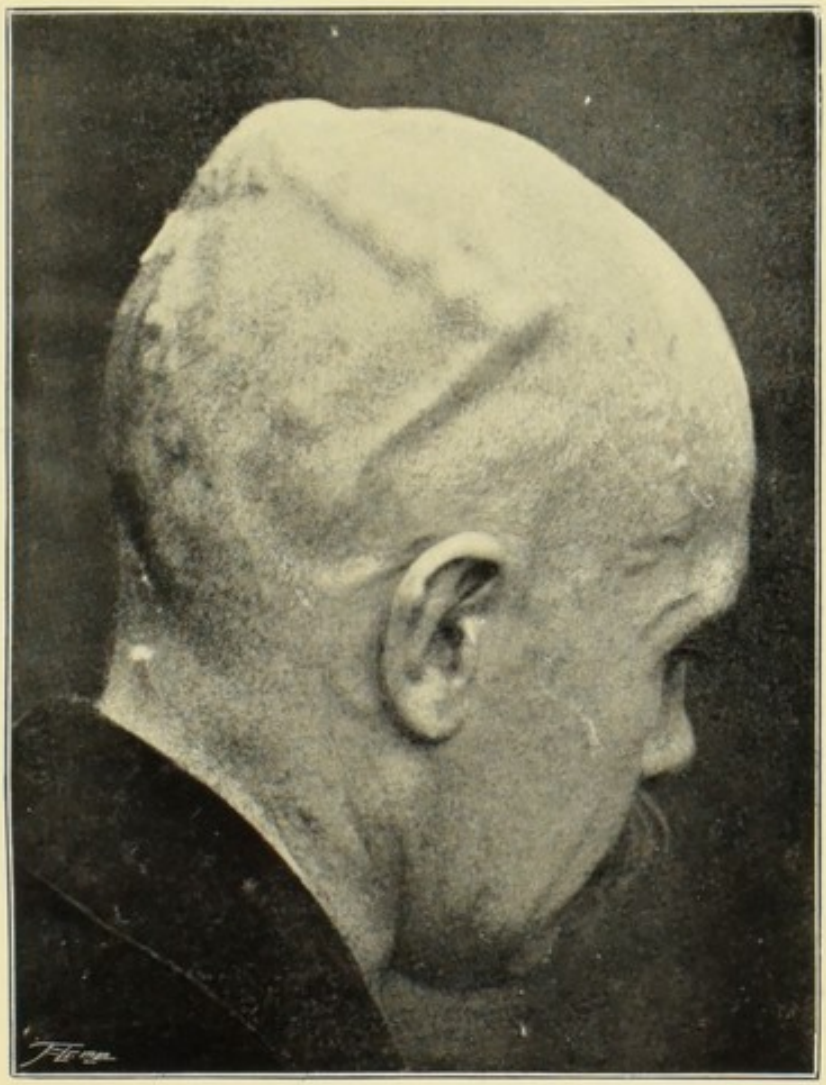
ber 25th, and consisted in applying a ligature to all the tortuous arteries as low as possible. So vascular appeared to be all the scalp cellular tissue, that each incision, though small, to secure the artery, involved a good deal of bleeding. When the ligatures had all been applied it was found that pulsation had completely stopped in the tumour.

Three days later, on the 28th, the wounds were examined and found practically closed, but pulsation was recognizable in the tumour. On December 5th the wounds were quite healed and stitches all removed; pulsation of the tumour, however, was more marked.

On December 9th the second and final stage of the operation was performed; this consisted in excision of the tumour by the following practically bloodless method:

It was decided to remove it by a diamond-shaped incision for two reasons—(1) that each side of the diamond might be bloodlessly completed before attempting another; and (2) that, after the growth was excised, the gaping wound would better lend itself to partial closure by approximating the sides of the diamond.

Before making the first incision, acupressure needles were passed at a distance of about half an inch from the proposed line of incision. It was thus possible to strangulate all the vessels on the distal side, and render that edge of the incision bloodless. A cut was rapidly made right down to the bone, and the tumour edge of the wound at once clamped with forci-pressure forceps. The most bleeding, and that not much, occurred at this first incision, because the want of separation of the tumour, which was allowed by the subsequent cuts, did not admit of easy and rapid application of the clamp forceps. The remaining three sides of the diamond were cut in the same way, and when the tumour was finally removed we had a bloodless wound surrounded by some eight or ten acupressure needles. It then only remained to withdraw one needle at a time, and in doing so to secure each bleeding vessel as it showed itself. A stitch or two was passed between the edges of the angle, and thus the raw surface was somewhat reduced in size.



Cirsoid aneurysm of the scalp. (From a photograph by Dr. Watt.)

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There is little to add regarding the further progress of the case. The wound healed rapidly and well; and the patient left the Infirmary on the last day of December cured of his complaint. There existed no indication of any dilated or pulsating vessels in the scalp.

It may seem that I have entered with undue prolixity into the description of the operation performed. But when it is remembered that fatal results from excessive haemorrhage have more than once occurred in the attempt to excise tumours of this nature from the scalp, it would not have been right in describing the operation to omit any step or precaution taken in its performance. It is quite possible that I might have successfully excised the tumour at the same operation as that in which I applied ligatures to all the different vessels. But I must own to the somewhat delusive hope which I had, after securing these vessels, that the complete cessation of pulsation which followed might end in cure. Against, however, any such possibility was the past record of numerous failures which had followed similar attempts. The treatment by electrolysis which we discussed was abandoned in the belief that careful incision would prove a much more rapid and certain way of dealing with the tumour. The practically bloodless nature of the operation was entirely due to the previous insertion of the acupressure needles and the way in which all bleeding points were secured as one needle after another was removed separately.

[The photographs accompanying this paper were kindly taken for me by Dr. Watt.]