SECTION OF OBSTETRICS.

A CASE OF LABOUR OBSTRUCTED BY A FIBROID TUMOUR: RED DEGENERATION OF THE TUMOUR.

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AND

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THE case—the clinical aspects of which I have the honour of bringing before the Section, its pathological features being dealt with by my colleague, Dr. Rowlette—is interesting as illustrating what may happen during labour when a fibroid tumour is situated in the lower segment of the anterior uterine wall. I say may happen, because the tumour is not invariably extruded before the descending head.

For example, some years ago I was called in consultation to the country to see a multipara who had been many hours in labour, and whom efforts to deliver with the forceps had failed.

She was exhausted; the pelvis was ample, the cervix fully dilated, and the vertex presenting; but the advance of the foetus was hindered by a large interstitial fibroid tumour in the lower segment of the anterior wall of the uterus; it could be felt over the pubes on palpation, and on introducing the hand, over half its circumference was found projecting into the uterine cavity.

With much difficulty I delivered her by turning a dead child. In this case, although the tumour had been below the head at the commencement of labour, it had not been dislodged by the head but remained *in situ*.

In the present case there were no symptoms during pregnancy of the presence of a tumour, consequently this woman, a multipara, although taken in labour of her fourth child at 9 a.m. on the 14th May, 1906, did not send for the medical officer of the dispensary until the next day.

When he saw her he at once directed her removal to the County Galway Hospital.

When she arrived, after a journey of twelve miles in a cart, at 3 p.m., she had been thirty hours in labour. I saw her a quarter of an hour later. Although tired she was in good condition, and the pains were vigorous and frequent.

A tumour could be seen presenting at the vulva.

The first thing to be done was to cleanse the patient and render the parts aseptic. With this object the abdomen, thighs, and vulva were washed with soap and warm water, then with carbolic lotion, and the vagina and vulva thoroughly douched with Condyl's Fluid and water. A catheter was then passed and a large quantity of urine drawn off, after which she was again douched.

On vaginal examination the outlet and lower portions of the pelvic cavity were found to be occupied by the tumour, above and behind which was the head, L. O. A. vertex presentation, the os was fully dilated, and retracted over the right side of the head and forehead, but was drawn by the pedicle of the tumour over the left side and occiput, to within a quarter of an inch of middle line of vertex.

The tumour was attached, apparently to the anterior lip and left side of the os, by a thick, short pedicle, between three and four inches wide and over an inch thick.

The question I had to consider was, whether I should remove the tumour first, or try and deliver the woman and then take away the tumour.

As it was very vascular and the pedicle so large I determined to adopt the latter course as being more likely to reduce the risk of hæmorrhage.

Pressure being made on the fundus uteri, I drew down the tumour just clear of the vaginal orifice, and while my colleague, Professor Brereton, held it as far forward as possible against the anterior surface of the vulva, I put on the forceps. The introduction of the right blade was easy, but that of the left blade was difficult, owing to the pedicle keeping the anterior lip and left

portion of the os tight against the left of the vertex and close to its middle line : fortunately the patient possessed a roomy pelvis and a yielding perineum, as extrusion of the head was barred by the tumour, and I delivered her of a living female child : the placenta was expressed in fifteen minutes and a dose of ergot administered.

The tumour and vulva were again thoroughly irrigated and a thick silk ligature was tied round the pedicle, close to cervix, notwithstanding which blood spouted freely from an artery in the surface of the tumour : I therefore clamped the pedicle, with a broad ligament forceps, and then cut through it with an ecraseur.

The pedicle was so tough that a stout steel wire used snapped when half way through it.

As soon as the tumour was removed the ligature and most of the forceps were drawn up into the uterine cavity, showing that the cervix had been everted, and that the attachment of the tumour was above the os internum : the vulva and vagina were again irrigated and the clamp was left on for two hours.

There was no hæmorrhage—patient progressed satisfactorily for four days, when she complained of headache, and the temperature ran up from 98° to 103.6° : I washed out the uterus with Condyl's Fluid and water and gave a dose of castor oil and turpentine, and next morning the temperature was normal.

She was discharged well on the thirteenth day.

DR. ROWLETTE'S REPORT.

“ The tumour removed by Dr. Kinkead, which I now present, is, as may be seen, somewhat globular in shape, though slightly flattened. Its diameters are four and a half and two and a half inches. It was, when fresh, a dusky red on the surface ; and it is enclosed in a very distinct capsule. On section, the tissue was a very deep red in colour, almost like raw beef-steak in appearance, the centre escaping colouration. It was soft and almost pulpy in texture, and freely oozed a fluid resembling caked blood.

“ *Microscopically*, the tissue presents the ordinary appearances of a necrosing fibroid in the early stages. The muscle cells have entirely disappeared, and the fibres of fibrous tissue are separated from each other, as if by the effusion of fluid. The nuclei of the tissue stain faintly or not at all. Blood-vessels are plentiful and large, with thick walls. In patches here and there, there is marked infiltration with leucocytes. By this necrosis both

central and peripheral parts were equally affected. There are small extravasations of blood, few in number. Organisms were not detected.

“The typical ‘beef-steak’ appearance of the tumour has earned for this form of necrosis the name of ‘red degeneration.’ It is difficult to estimate the relative frequency of its occurrence. Noble, from an examination of over two thousand cases of fibroid, finds some form of necrosis present in 4.7 per cent., and in comparatively few of these would red degeneration be present. Fairbairn, on the other hand, found this form present in over 8 per cent. of his own cases of fibroid, and he calculates that it is present in probably 5 per cent. of all cases. In my own experience at the Rotunda Hospital for two years I have not seen a specimen out of some fifty fibroids examined. As to the pathology of the change there is as yet no definite agreement. Fairbairn, who has given the best description of the process, confines himself to destructive criticism.

“The conditions necessary for its occurrence are, I would suggest, a rich blood supply to the tumour, and its sudden cessation. The tumour is always cedematous and pulpy, and the vessels are always well developed. Under such conditions necrosis is unlikely to occur spontaneously, but will occur if some accident suddenly stops the blood supply. In some of the recorded cases the condition has been found in subserous fibroids whose pedicles had become twisted. A case shown to this Section last year by Sir Arthur Macan was a pedunculated tumour with adhesions. In at least half the recorded cases, fourteen out of nineteen of Fairbairn’s series, the condition was, as in the present case, associated with pregnancy. It has often been noted that the tissue of a fibro-myoma may, during pregnancy, undergo similar changes to the uterine muscle from which it springs. It becomes, in fact, softer and more vascular.

“The occurrence of labour, with the descent of the head, may cause pressure on the blood supply of the tumour, and necrosis occurs. The blood caked, either as the result of the death of the corpuscles, or by the infusion into the blood of some of the products of decomposition, and diffuse red staining of the tissues occurs. The staining is, as Gibbard pointed out, parallel to what would take place if a small piece of the tumour were immersed in a solution of hæmoglobin.

“As bearing out this view of the pathology of the condition, I would advance the following facts:—

“ (1) The uniform necrosis of the whole tumour. Other forms of necrosis occur in patches at the points furthest from the blood supply. When the red degeneration does not affect the whole tumour, it is found that the limitation is very definite, whereas in other necrosis it is gradual.

“ (2) The comparative absence of red blood corpuscles from the tissues. The corpuscles have died, and given up their pigment.

“ (3) The association, already mentioned, of red degeneration with pregnancy, which is liable to cause both rich blood supply and pressure.

“ (4) The association, also mentioned, with other causes of definite pressure, such as occurs in a twisted pedicle.

“ (5) The greater frequency with which pedunculated fibroids are affected than interstitial.

“General observers have noticed constitutional symptoms in cases of red degeneration. Pain is said to be a common feature. An unhealthy appearance, a yellow complexion, wasting, and gastric disturbances are said to be more frequent than in other cases of fibrous tumour. In the present case apparently none of these symptoms were present. Their presence in most cases is doubtless due to the absorption of the products of decomposition.

“It is not possible to give any account of the probable termination of the condition if untreated. One case of Cullingworth's, in which he found a large cavity filled with bloody fluid and fibrous debris, may have been a late stage of red degeneration. If the part becomes infected by bacteria, sloughing is likely to occur. In most cases, however, it is probable that the pain and constitutional symptoms bring the case under early treatment, and consequently, if we except Cullingworth's case, the later stages have not yet been observed.”

DR. HENRY JELLET said the Section was indebted to Professor Kinkead not only for his paper, but because he had given Dr. Rowlette, incidentally, an opportunity of making a very important contribution to the pathology of an obscure condition. If the staining in the case was identical with the staining that would

be brought about by the breaking down of the red corpuscles in the blood, by finding a cause for such a breaking down, some explanation would be found for the condition. On a former occasion he had suggested that there was possibly some curious bacterial action which brought about the change, but, with or without a previous bacterial invasion of the tumour, some ferment might be formed in the tumour that would lead to breaking down of the corpuscles.

DR. HASTINGS TWEEDY congratulated Professor Kinkead on the brilliant way in which he had dealt with the case, and brought it to a successful delivery, notwithstanding the immense difficulties in his way.

DR. ASHE, DR. FITZGIBBON and the PRESIDENT also spoke.

DR. ROWLETTE, in reply, said the term degeneration as applied to the condition was a bad one ; it was not a degeneration, but a necrosis. In none of Fairbairn's cases was any bacterial infection found. If bacteria gained access to the degenerated fibroid it was likely to be quite different from the simple necrosis in the case before them.