the significance of the viscosimetric-refractometric findings in various diseases, which it is hoped may be dealt with in another paper, but that it has a distinct value in cases of syphilis, cancer, and tuberculosis has been shown by Bircher,^{10, 11} in secondary anaemias and in peritoneal infections by Oehlecker,²⁰ Simon,²⁴ and Süssenguth,²⁵ in pneumonia by Ch. Achard, Touraine, and St. Girons,² and by Franklin,¹⁵ and in oedema by Shirley.²³

I am indebted to Messrs. E. F. Buchi, Hochachtend, Bern, for the loan of the block.

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DELIVERY OF BREECH WITH EXTENDED LEGS.

BY

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WITH the object of discovering the most satisfactory method of treating a breech presentation with extended legs, we have recently investigated the details of 100 cases that have occurred at Queen Charlotte's Maternity Hospital during the last ten years.

Of the 100 cases only 6 were delivered spontaneously with legs extended; with the remainder the legs were brought down before delivery. The average weight of the children born with extended legs was 5 lb. 10 oz.; when the legs were brought down the average weight was 7 lb. 7 oz.

The delay was so considerable that it practically amounted to obstruction in 47 of the cases where the legs had ultimately to be brought down; that is to say, the breech did not advance in spite of good pains, although left as long as two hours in the second stage. Of these 47 cases, 28 were delayed in the cavity of the pelvis and 19 on the perineum; in the latter condition the difficulty in pulling down the legs was much greater.

Of the remaining 47 cases no record was kept of the reason for the bringing down of the legs, but in all the breech was well down in the pelvic cavity or on the perineum before the legs were brought down. The inference is that in the majority of these cases there was some delay at the outlet. In most cases both legs were brought down simultaneously. When only one leg was brought down it was generally necessary to bring down the other at a later stage.

After the extended legs had been brought down the presenting part advanced regularly without further interference. Sometimes this advance was found to be slow, but it was not accompanied by foetal distress. When the child was born as far as the umbilicus the position of the arms was then ascertained. They were found to be extended in 94 cases, 6 of these being instances in which delivery took place spontaneously with legs extended. In the remaining 88 cases the legs had merely been brought down and not

pulled on, nor was fundal pressure used until the arms had been brought down. This, in our opinion, is of great interest, as it appears to show very clearly that the extension of the arms is a primary condition, and not, as generally supposed, the result of the legs being pulled on. In every case the arms were pulled down and the head delivered without delay by various methods (the Prague, Mauriceau-Veit combined with fundal pressure).

In 13 cases great difficulty was encountered in the delivery of the head. Apparently this was due in the majority to extension of the head. In 2 cases forceps, applied to the after-coming head, were used with success, and in 4 perforation through the roof of the mouth was necessary before delivery was possible.

Conclusions.

The conclusions we have drawn from the investigations and from our personal experience of 20 cases are as follows:

1. As a general rule extended legs have to be brought down.

2. In the comparatively few cases where it is not absolutely necessary, it will shorten the labour and lessen the sufferings of the patient if the legs are brought down.

3. The right time for bringing down the legs is as soon as the os is fully dilated. It must be understood that each case must be treated according to the attendant circumstances.

4. When the presenting part is not advancing we consider that the legs should be brought down although the os may not be fully dilated. In these circumstances the os should not be rigid, and it should be at least three-quarters dilated.

5. It was noted that there was greater difficulty in bringing down the legs when the delay was on the perineum.

6. Before the legs are brought down an anaesthetic must be administered. The result is that temporarily the pains either cease or become weaker. In our opinion it is better to bring down the legs and then wait until the pains become stronger, when the patient will be able to deliver the child as far as the umbilicus. No harm will be caused to the child by this delay. Unless there is a definite indication, such as foetal or maternal embarrassment, we consider it better both for mother and child not to pull on the legs at all after they have been brought down.

7. When the child is born as far as the umbilicus a loop of cord can be pulled down and watched. The position of the arms must then be ascertained. If found to be extended (this is usually the case) they must be brought down. Before doing so an anaesthetic must generally be administered. The posterior arm must be found and pulled down, then the anterior. If there be any difficulty the body should be rotated so that the anterior arm becomes posterior. This will give more space by reason of the hollow of the sacrum, and the bringing down will be accomplished with greater ease. At this juncture, and not earlier, the skilled assistant can follow the head from above and endeavour to keep it flexed.

8. As in most cases there are difficulties with the after-coming head, we consider that it is best to use the Mauriceau-Veit method, with fundal pressure from above. In combination with this method and in those cases where the head is not well flexed, it has been found advantageous first to push up the occiput with the fingers of the right hand, thus helping to flex the head, then to get two fingers of the left hand well down over the tongue, not only just inside the mouth. When this has been done both hands should pull in the axis of the pelvic outlet, and fundal pressure should be applied in the same axis. The pushing up of the occiput and the placing of the fingers well inside the mouth instead of just inside the lower jaw are two points which we consider of much importance.

Summary.

We are of the opinion that care should be taken—

(a) In deciding the propitious time for bringing down the legs.

(b) In realizing the importance of not pulling on the legs when once they have been brought down.

(c) In ascertaining the position of the arms in the uterus as soon as the child is born as far as the umbilicus.

(d) In the delivery of the after-coming head, with special reference to the pushing up of the occiput and placing the fingers well inside the mouth of the child before delivery.

We wish to express our deep obligation to the Committee of Queen Charlotte's Hospital for the use of the above statistics, and our sincere thanks to Mr. Aleck Bourne for his generous help and advice in preparing this paper.

LUMBAR RIB OF UNRECORDED TYPE.

BY

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On September 26th, 1925, a member of the city fire brigade attended sick parade and stated that on the day previous, whilst practising with a jumping sheet, he had injured his back. He also stated that on November 25th, 1922, he had fallen into one of the dry docks in the city and had injured the same place as well as his left upper arm.

He was seen at that time by my predecessor, Dr. J. Wright Mason, who ordered his left arm to be x-rayed, for

the reason that he complained more of the injury to this than to that of his back. The x-ray photograph showed nothing abnormal, and after a lapse of a few weeks he returned to full duty.

On examination I found that he had a very tender point corresponding to the transverse process of the fourth lumbar vertebra, but both Dr. David Hyslop, my assistant, and I were of the opinion that he had ruptured some of the muscular fibres of the erector spinae at that point. I

strapped him up and he got a certain amount of comfort, but the pain did not disappear so quickly as I had anticipated, and as he still complained of acute pain at the one particular point—namely, the fourth lumbar vertebra—I decided to have this x-rayed.

The condition displayed was a lumbar rib arising from the transverse process of the third lumbar vertebra; it curved down and fused with the transverse process of the fourth lumbar vertebra on the same side. It was also seen in the x-ray photograph that there was a fracture of this rib close to the transverse process of the fourth lumbar vertebra, but the fragments were in good position.

I wrote to Professor Robert Howden, Durham University, who for some time has been responsible for the editing of *Gray's Anatomy*, and he informed me that he had neither seen nor heard of a similar condition, although a rib arising from the first lumbar vertebra was not uncommon.

I may say that the patient is a very well developed man, and previous to this occurrence had no knowledge that such a condition existed.

I am indebted to Dr. W. H. Rowden, Leeds, for the skiagram.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TORSION OF FALLOPIAN TUBE.

Torsion of the normal Fallopian tube is an exceedingly rare event. Michael reports a case,¹ and states that only two others are known to have been reported previously. Since then another case has been recorded in the *JOURNAL* (April 4th, p. 657) by Davies. The following is an additional case.

A single woman, aged 32, was admitted to the Rochdale Infirmary on the afternoon of December 4th, 1924, as a case of acute appendicitis. She stated that severe abdominal pain had commenced in the early morning of the same day and she had vomited continuously since. Her periods had always been irregular, the last having occurred nine weeks previously. The pain was referred to the right iliac fossa and to the back of the right buttock in the area supplied by the first lumbar nerve. There was some rigidity over the right iliac fossa. Cutaneous hyperaesthesia was very definitely present just above the centre of Poupart's ligament and to a lesser degree over the area behind previously referred to. On rectal examination a tender swelling was felt to the right of the uterus. The temperature was subnormal and the pulse 100.

A tubal lesion was diagnosed, and on opening the abdomen the right Fallopian tube was found to be twisted, together with an abnormally long mesosalpinx, in a clockwise direction, and to be black, swollen, and intensely congested. The rest of the organs were normal. The tube was untwisted with the greatest readiness and there were no adhesions; it was removed, and the patient made a good recovery. She began to menstruate two days after the operation.

There were thus present in this case the requisite factors which appear necessary to precipitate this occurrence—namely, a long mesosalpinx and the circulatory disturbances caused by premenstrual hyperaemia.

The striking point about the symptoms, to my mind, was the very definite area of pain and cutaneous hyperaesthesia over the right buttock in the area supplied by the first lumbar nerve. The afferent fibres of the tube appear to belong to the eleventh and twelfth thoracic and the first lumbar nerves. In this case, at any rate, its innervation must have been definitely from the first lumbar segment, as the thoracic segments were not affected.

In twenty-seven cases of ectopic gestation leading to either rupture of the tube or tubal abortion, lesions somewhat comparable in severity, I have not observed this sign before.

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PULMONARY OEDEMA IN A CHILD.

A CHILD, aged 4½ years, had been confined to the house, but not to bed, for a few days with a cold, when, while playing on the hearth with other children, clear fluid was seen to gush from her mouth and nose. The mother formed the idea that the child was vomiting. I was sent for, and when I arrived I found frothy colourless fluid oozing steadily from mouth and nostrils. She was cyanosed and restless, and obviously in acute distress, the breathing was laboured and wheezy, the limbs rigid, and the hands clenched. Little air was entering the lungs, the breath sounds were obscured by coarse rhonchi, and the whole chest was dull on percussion. The diagnosis of pulmonary oedema was hazarded, and atropine gr. 1/200 was given hypodermically. In a quarter of an hour there was a decided improvement in her condition, and in half an hour the cyanosis and the flow of secretion had ceased. Before the expiration of an hour the chest was clear on auscultation and gave a resonant note on percussion. At this stage the child fell into a natural sleep which lasted unbroken for six hours.

Beyond a few fine rhonchi in the right chest for a day or two the patient appeared none the worse for the incident. The pupils responded to atropine in a puzzling manner. Both before and immediately after the injection they were widely dilated, but when improvement in the general condition was manifest they were contracted to little more than a pin-point.

Pontyclun, Glam.

RICHARD KENEFICK, M.B., B.Ch.

¹ *BRITISH MEDICAL JOURNAL*, March 14th, 1925, *Epitome*, para. 287.