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DANGERS LIKELY TO BE ENCOUNTERED IN A MULTIPARA WHO HAS HAD MORE THAN SIX DELIVERIES

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It is not always to be inferred that, because previous six or seven labours in a multipara had terminated normally, especially when they all have succeeded each other at short intervals, the next labour will surely run a normal course. Even for normal delivery to occur, there are certain factors which should be essentially present and be operating. These are: the parturient canal should have normal dimensions, the child should be of the average size and the expulsive force exerted by the uterus should be of the usual strength. Any departure from the normal condition will probably have unfavourable effect on labour whether the first or the sixth.

Nature is very generous and has constructed the body in such a way as to bestow, to all the organs in it, capacity to work beyond ordinary requirements. These organs, and the space set aside for them, manifest this property, the generative organs, and the pelvic cavity in which they are contained, not being exceptions to the general rule. The pelvis has more room than is wanted for the child to pass through during labour. The uterus too possesses strength more than is necessary for normal labour. This extra power is regarded as reserved capacity. But both the pelvis, as well as the uterine expulsive force, may be defective; they may be less than normal, the pelvis being small and the uterus weak. The consequence is the course of labour is unfavourably affected. The effect is conditioned by the degree of diminution which may be of either minor, moderate or major degree.

If the pelvis is slightly or even moderately small, but, at the same time, the uterus possesses its inherent strength, it may succeed in bringing about birth of the child normally by moulding its head to adapt it to the

pelvic cavity. This successful issue may be observed in earlier pregnancies; for the strength of the uterus then may be unimpaired and it is able to cope with the work. Nevertheless in later pregnancies, such favourable termination may not ensue. This may be due to certain factors; first, the uterus might not have the same power which it displayed in the earlier pregnancies, especially when they have followed each other in quick succession; secondly, in general, each succeeding child is larger and heavier than the previous one. As a result the larger child has to encounter more resistance in passing down the birth-canal. The uterus has therefore to undergo more work. In executing it, it has to take longer time and expend more energy. So in comparison with the former labours later ones prove to be more difficult when some degree of pelvic contraction exists.

Moreover, nature has appointed another mechanism to surmount a little difficulty that may arise in normal delivery. It is the construction of the foetal skull as is noticed at the time of birth. The bones of the skull, constituting the vault, are united by membranes, on account of which moulding of the head can take place. Its diameters which are subjected to pressure become reduced in length, while compensatory increase occurs in the diameter which is free and is along the axis of the pelvic cavity. Thus the shape of the head is altered and it is made to adapt itself to the size of the pelvic cavity. In the case of normal labour, very little moulding does occur; but when the pelvis is in size less than normal, the moulding of the head is generally seen. When the labour has just begun and yet the head is found to lie in the pelvic brim, which is known by the height of the anterior shoulder being 4 inches, the head will be in contact with the pelvic wall and its greatest circumference would be above the brim. In these conditions, the head has to undergo moulding before it can travel down the bony pelvis. When the head is free above the pelvic brim and the anterior shoulder is $4\frac{1}{2}$ inches and above, the head is overlapping the symphisis pubis. This indicates that either there is actual disproportion or the uterus as well as the abdominal wall is weak and in consequence the head is not pushed down into the pelvis, as is seen in a multipara who had several deliveries. To distinguish between actual and apparent disproportion the head would be felt to have descended into the pelvis and the height of the anterior shoulder lessened, while in actual disproportion, the head instead of entering the brim, and the height of anterior shoulder becoming less, will be found to overlap the pubis. Then the amount of overlapping may be determined. It may be slight, moderate or excessive.

The amount of overlapping can be made out, while the patient is in the exaggerated lithotomy position and the examiner is standing in front of the buttocks, by holding the right hand flat on the pubis in such a way that the fingers are straight above it against the head and the palm on the Mons Veneris. Should the overlapping be excessive, the fingers would

be pushed forwards by the head, and then it may be concluded that there is no possibility of the head ever entering the pelvis, since the disproportion is too much. In this case delivery by abdominal route is necessarily required.

If the overlapping is slight or even moderate, the part of the head directed anteriorly will be felt inside away from the fingers held quite straight or will be in touch with them. To distinguish between slight and moderate overlapping, the fingers may now be bent and passed over the top of the symphisis pubis to note how far the head is riding the bones of the anterior wall of the pelvis. When riding slightly, the surface of the head will be deeper than when moderate. Again when moderate, it may gradually come almost forward and touch the fingers. Thus we can recognize the amount of overlapping.

Just as when the head is in the brim, and the anterior shoulder is 4 inches, the greatest circumference of the head is above the brim, so is the case when the head is above the brim and the anterior shoulder is upwards of 4 inches. The head then can descend into the pelvis only by undergoing moulding. Here another phenomenon that takes place in the first stage from the onset of labour must be mentioned. It is nothing but the raising of the anterior triangle of the pelvic floor, by which the bladder, the extraperitoneal tissue and fat are lifted up into the abdominal cavity and thereby Retzius' space is almost emptied. The result of this is that the capacity of the pelvic cavity is proportionately increased. The head thus has more room to enter and to travel down. This little additional room does not in any way remove the necessity of moulding, though it is lessened to a slight extent. This mechanism, however, indicates what precautions have been taken by nature to forestall difficulty and to facilitate delivery.

When the head is free above the brim, though there may be slight or moderate overlapping, it lies with deficient flexion and therefore does not completely fill up the lower segment. Consequently the bag is prone to rupture prematurely. This allows the liquor amnii to drain away. As the labour pains set in, the head in general tries to enter the transverse diameter of the brim, the engaging diameter being the occipito-frontal.

To favour the descent of the head, moulding occurs. It may be moderate, it may be excessive. It may be physiological, it may be pathological. When physiological, no injurious effect is produced on the cranial contents. But when pathological, the moulding proceeds so far as to cause undue compression of the brain or the tearing of the dura mater, inducing haemorrhage in the cranial cavity, and thus leading to death of the child while in the birth canal or very soon after birth. Pathological moulding is apt to happen when the moderate overlapping approaches the lowest limb of the excessive overlapping. On the contrary if the moderate overlapping exceeds less and less the slight overlapping, the chances of the moulding of the head becoming physiological, and less injurious, are greater.

The above results may be observable in a primipara with slight or limited moderate disproportion. But in the case of a multipara, the case is different. Despite the unfavourable history of previous labours, if such a multipara be neglected, the ill-effects on her are more pronounced than on a primipara in similar conditions. It is for the most part due to her uterus having gradually become weak. With slight or early moderate disproportion the first labour would end naturally. If the force begins to get weaker during the second stage, artificial aid would be required to effect delivery. Three or four subsequent deliveries may not be prolonged to that extent and may end naturally. It is because during the first delivery the parturient canal had been fully dilated and as a result the child meets with less resistance in descending. But the advantage gained by previous dilatation of the birth canal is rather undone by the weakness that the uterine wall acquires by successive pregnancies.

Suppose we take the case of a sixth para already in labour at term and with slight disproportion. Her previous labours may not have been quite easy on account of smallness of the pelvis though slight. Her uterus might have lost a good amount of tone and grown weak. A labour just preceeding it might have been greatly protracted, effected with instruments and attended with even post partum haemorrhage. To forestall considerable haemorrhage, it might have been thought wise to remove the placenta manually. Some sepsis might have followed but the patient got over it quickly. The labour in question would naturally be beset with difficulties as can be anticipated from the history given of previous labours and the case would have to be watched with sedulous care. Nevertheless with all the care because of the weakness of the uterus, the knowledge of which cannot be anticipated and which is hard to conceive fully, certain accidents may creep in which lead to unfavourable consequence. Of these accidents, one of the most common and dangerous is the rupture of the uterus. As instance of this I cite the following two cases.

Case 1.

A Sikh lady, multipara (VII), 40 years old. She had toxaemia of pregnancy with anaemia. Her previous labours were all normal except the last which was protracted. The child was then extracted by forceps but was still-born. Thinking that a general military hospital is not the right place to have confinement done, her husband brought her to our hospital for registration in the following pregnancy. She had then marked oedema of the legs and looked anaemic. She was asked to have salt-free diet and liver therapy with vitamins. The pregnancy in question had followed the last one at an interval of 2 years. She came in with labour pains, with the head at the brim and the bag ruptured. Pains were feeble and it took a long time for the head to enter the pelvis. To preserve her strength hypnotics were administered in the early stage. After rest the pains increased somewhat in their intensity but they were never very strong. It was long however

before the head appeared to have descended on the pelvic floor. The patient however all of a sudden became restless and the child showed signs of distress. So forceps was very soon applied and the child extracted. Its heart was then beating but it had grown very slow and getting slower still, it stopped in spite of all the measures to resuscitate it. As the mother's condition was rapidly getting worse, a hand was soon introduced to remove the placenta, when it was found that the uterus had given way and a greater part of the placenta was protruding into the abdomen, while a small portion was in the uterus. As the placenta had detached, the cord was dragged upon by the other hand and the placenta removed, while the hand in the uterus, investigated the rent in the organ. It was decided at once to remove her to the operation theatre, but time proved to be too short to do anything, and she expired.

Case 2.

A Hindu lady, multipara (10th time), very fat age 39. Her last but one delivery was obstructed and was effected by artificial aid. She was advised to have caesarean section on the next occasion, but being against it, she preferred to go to another hospital. Her name was registered in our hospital. She simply mentioned that her last labour was much prolonged. Fortunately for her, she then had normal premature labour just at the commencement of the ninth month. After delivery she mentioned that though in other hospital abdominal operation was recommended, yet here a natural delivery had taken place. We however advised her to have sterilization done; but she would not have it either. She became pregnant after the lapse of four years. She came for registration in her 8th month, when the abdomen was found too prominent for the period of pregnancy. To rule out twins, a radiogram was obtained. It showed that there was only one child, but it appeared to be rather big.

She came in with labour pains. Then the head appeared to have entered the mid-cavity, as the anterior shoulder was three inches. The membranes had already ruptured at home. She was from the very beginning straining very hard in spite of the persistent request not to do so. As a result she showed signs of fatigue and a hypnotic was administered to guard against its further aggravation. She awoke with acute pain in the abdomen and bleeding per vaginam. The pulse grew very rapid and she was restless. The foetal heart sounds could not be heard. The child was thereupon extracted. On introducing the right hand to remove the placenta, it detected rupture of the uterus, but the placenta was in the uterus. It was separated and removed. The child looked large and wighed just over 10 lbs. The rent in the uterus was detected, but before the abdomen could be opened she died.

Discussion.

Both the patients were multiparae having had more than six deliveries. They were middle aged. The Sikh lady had at her previous labour great difficulty, and the forceps was used

to effect delivery. The child was still-born. The uterine wall might have suffered from prolongation of labour and from the artificial aid given in the general military hospital.

The Hindu lady had her last but one delivery so protracted and difficult as to make the obstetrician in attendance suggest to her relatives that on the next occasion caesarean section should be performed. Her delivery just before the last fatal one was a little premature and it ended naturally. That gave rise to false complacency in mind. But in the last pregnancy her abdomen was too prominent, which raised the suspicion of twins but a radiogram proved it to be of one child. It was however big in size.

In the case of the Sikh lady, as her general condition was poor, owing to toxaemia of pregnancy and anaemia, there might have been as well some injury to the uterine wall in the immediately previous labour, which was difficult and terminated with forceps, the strain of the next labour proved to be too much and caused the uterine musculature to give way. This took place without rousing up suspicion in the mind.

Conclusions:

(1) History of first labour is of great significance.

(2) It is more so when it is suggestive of slight disproportion, known by the history of protraction of labour, the necessity of rendering artificial aid such as application of forceps, and of the child's surviving after birth, though born rather asphyxiated.

(3) The succeeding two or three deliveries may have ended spontaneously as a result of previous dilatation of the birth-canal and relatively greater strength developed by the uterus by nature.

(4) But soon, especially when pregnancies have succeeded each other at short intervals, and at the same time if each succeeding child has weighed more and more, the uterus goes on becoming weaker.

(5) The consequence is, the subsequent labours endure long and may be attended by post-partum haemorrhage which becomes profuse with each pregnancy.

(6) At last, a stage is reached when labour begins to get too protracted and the mother and the child show signs of distress.

(7) Under the circumstances, artificial aid is called for, especially in case of any abnormal presentation, which is not less likely to happen, as the uterine wall is weak and lax.

(8) In these attempts the wall may be injured.

(9) In case the next pregnancy follows early, the uterine wall may give way in its endeavours to effect delivery, even when the uterine contractions are not very powerful.

(10) In such cases prophylactic sterilization of the woman after the fifth or sixth delivery is most advisable.