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TWO SUCCESSFUL POST-MORTEM CAESAREAN SECTIONS FOLLOWING SPINAL ANALGESIA

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The following two cases of maternal death after spinal analgesia present three points of interest. Two live babies were delivered by classical caesarean section performed some four minutes after maternal death, during which time every possible effort was made to resuscitate the mothers. Both patients were exhausted, and suffered from malnutrition and some degree of anaemia. In each case our intention was to perform caesarean section in order to terminate imminent obstructed labour. In both cases death followed immediately on the administration of 2 ml. of amylocaine hydrochloride ("stovaine") and before the operation had begun.

Case 1

A primipara, aged 28, who had not attended the antenatal clinic, was admitted on July 1, 1949, at term. She had been in labour for 20 hours, with the membranes ruptured for 15½ hours, and was now having strong frequent contractions.

Her general condition seemed good, but there was evidence of malnutrition and anaemia. The temperature was 98.4° F. (36.9° C.), the pulse 100, the respirations 20, and the blood pressure 100/64 mm. Hg. Abdominal examination revealed that the position of the foetus was right occipito-anterior, with the head overlapping the symphysis pubis. The foetal heart rate was 144. On vaginal examination the cervix was found to be two fingerbreadths, and the pelvis generally contracted with a promontory projecting acutely forward.

In view of the findings of marked disproportion, we decided to perform a lower-segment caesarean section. Atropine, 1/100 gr. (0.65 mg.), was given as premedication. One hour later, ephedrine, ½ gr. (50 mg.) intramuscularly, was followed by 2 ml. of amylocaine intrathecally. About ten seconds later she began to gasp violently. Breathing ceased about 45 seconds after administering the analgesic, but the pulse continued for a few seconds longer. During this time ephedrine, ½ gr., was repeated, followed by 8 min. (0.5 ml.) of adrenaline hydrochloride (1 in 1,000), an intracardiac injection of nikethamide, 1 ml., and also anal stimulation. Despite these measures and artificial respiration there was no response. The abdomen was rapidly opened and cardiac massage from below the diaphragm attempted without effect. A classical caesarean section was performed and a live baby, weighing 7 lb. (3.2 kg.), was delivered some four minutes after the mother's death.

Case 2

A primipara, aged 22, who had not attended the antenatal clinic was admitted on September 27, 1949, at term, having been

in labour for 16 hours, and with the membranes ruptured for six hours.

On examination her general condition suggested nutritional deficiency. The temperature was 99° F. (37.2° C.), the pulse 120, the respirations 24, and the blood pressure 102/64 mm. Hg. Abdominal examination revealed that the bladder was distended, the position of the foetus was left occipito-anterior, the head engaged, and the foetal heart rate 148.

Per rectum, the head was felt low mid-cavity with a marked caput, and the cervix, which was three fingerbreadths dilated, was very oedematous and tight. Per vaginam, the rectal findings were confirmed, and it was found that the pelvic outlet was markedly contracted, the subpubic angle being about 75 degrees, and the outlet transverse 3 in. (7.6 cm.) The head could not be displaced for catheterization. It was decided to perform a lower-segment caesarean section.

After the usual precautions, amylocaine, 2 ml., was given intrathecally, and the patient collapsed immediately. The same resuscitation procedure was carried out as for Case 1, with the exception of cardiac massage, but there was no response.

A classical caesarean section was immediately performed; an asphyxiated male baby, weighing 6 lb. (2.7 kg.), was delivered, the baby responding to treatment.

Discussion

It is not our purpose to discuss the advantages and disadvantages of spinal analgesia for caesarean section. The deliberations at the meeting of the Section of Obstetrics and Gynaecology of the Royal Society of Medicine in March, 1947, revealed how divided were the views of leading authorities. Bourne and Williams (1948) are eloquent in their summing-up of the present situation, and conclude: "There is, we fear, in this country, a considerable number of young healthy pregnant women who stand condemned to death by spinal anaesthesia for caesarean section."

When we took up our present appointments a year ago we were of open mind, because one of us (A. H. C. W.) had performed 179 caesarean sections at the Postgraduate Medical School of London without mortality, using spinal analgesia in some ten cases, but we have been obliged by circumstance to use it here. We personally have used the method for 168 major gynaecological cases here without any death attributable to it.

These two recorded catastrophes were among our first 12 caesarean sections under spinal analgesia. We are tempted, therefore, to assume that the risks are peculiar to the pregnant woman, and especially to the West African parturient, whose average blood pressure, like that of her Indian counterpart (Napier, 1946) is lower, with the result that the margin of safety is less should a fall in blood pressure occur as a result of the spinal analgesic. Moreover, West Africans here are often admitted late in labour in an exhausted condition and suffering from malnutrition and anaemia, which it may be impossible to countefact in a short space of time.

Since these two catastrophes we have been able to avoid spinal analgesia, and we have performed a further 17 caesarean sections without mortality, using open ether.

Summary

Descriptions are given of two cases of maternal death after spinal analgesia, in which live babies were delivered by post-mortem caesarean section. Reasons are suggested for the deaths of these two women, who were both West African natives. Spinal analgesia was afterwards avoided, and no further trouble was encountered in 17 cases of caesarean section.

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