with catgut. The time required for the operation was ten minutes. No jaundice occurred in any of these infants, and their weights were well maintained. With regard to the umbilicus, there was in these four cases a very remarkable result, as compared with all the others. On the fourth day in each case the umbilical stumps were quite healed, and the cicatrix was already retracted. The stumps had healed like ordinary surgical wounds kept aseptic. The good results were evidently due to the complete removal of all the dead structures and to the freshening of the cutaneous surfaces; no putrefactive changes took place, and the surfaces united by first intention. At first it seemed to us that there might be apprehension of danger from ligatures so near the umbilical ring slipping; but, as a matter of fact, it was found that the supporting structures were firmer near the umbilicus than at a distance from it, and there was actually less risk of slipping and consequent haemorrhage.

These experiments brought home very clearly to my mind the conviction that, if the umbilical cord was to be treated on strict surgical principles, Method F was the only plan which fulfilled all the requirements. All the other procedures left pieces of funic tissue to separate by putrefaction, and the process of cicatrization was apparently lengthened rather than shortened. It was certainly remarkable that none of the infants showed jaundice; but I cannot confidently affirm that their immunity was due to the unusual treatment given to the cords. It was also very satisfactory that none of the children had any morbid developments, and as a rule regained their original weight well; but, again, it can hardly be claimed that this result was the consequence of the various modes of dealing with the umbilicus, although they may have contributed to it.

The sixth plan (Method F) certainly gave very satisfactory results, for to obtain a cicatrized and retracting umbilical scar at the fourth day was something worth working for. The great objection to it which will at once come into the mind of the general practitioner, as well as into that of the maternity hospital surgeon, is the length of time it requires and the fact that it takes the medical attendant away from the mother at a critical part of the third stage of labour. The second difficulty might be got over by clamping the cord temporarily and treating it surgically after the third stage is over; and the first objection will, of course, become less formidable as the obstetrician acquires skill in the performance of the necessary manipulation. I am inclined to think that this method will find its greatest usefulness in cases in which at previous confinements there was evidence of umbilical infection of the new-born infant, more especially when such infection occurred in prematurely born infants, in whom we must suppose the umbilical vessels are more liable to remain permeable for a time. I do not think we can hope that it will yet be adopted as the routine treatment of the umbilical cord, but I trust that it will be found useful in cases where infection through the umbilicus is dreaded, and by obstetricians who are dissatisfied with the ordinary method of ligaturing the funis.

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A CASE OF CHRONIC INVERSION OF THE UTERUS,

WITH REMARKS ON THE MECHANISM OF REINVERSION.*

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The following is a brief history of the case:

Mrs. M'C., a primipara, aged 24 years, was delivered on November 29th, 1908. Labour was slow, and forceps were used to complete delivery. The expulsion of the placenta gave some trouble, and was followed by copious loss. This was checked by hot douches, but slight haemorrhage persisted during the whole of the puerperium, and a profuse bleeding occurred on December 25th. Other symptoms were obstinate constipation, and a "feeling of something coming down," which was only present during micturition while she remained in bed, but became constant on her rising at the fourteenth day.

I saw her on December 26th. She was very anaemic, and on

examination presented the typical signs of a chronic inversion of the uterus. The inverted organ was of about the size and shape of a large hen's egg, and was soft and elastic in consistence. I looked for the orifices of the Fallopian tubes, but failed to discover them. Attempts at taxis, both without and with an anaesthetic, made no impression on the displacement. We then decided to try repositors. I was unable to procure Aveling's, which are highly recommended, and had to take an instrument designed by a Mr. Lawson Tait. I inserted his largest repositor on December 28th, and as no effect had been produced next day, I tightened up the elastic bands. Two days later the cervix was re-formed, and two days later still the apex of the inversion was flush with the external os. On the next day it had receded within the widely dilated cervix. Wide as the cervix was, Tait's smallest repositor could only have been inserted into it with considerable difficulty. I contented myself therefore with putting a small plug of gauze in the vagina. On removing this two days later, eight days after treatment had been commenced, the uterus could be felt bimanually in its normal position and completely reinverted.

One or two points in this case are worthy of a remark in passing.

1. Unskilful conduct of the third stage has been often assigned as the cause of this accident. The method employed in this case was a combination of expression and gentle traction on the cord, and has served the practitioner who was in charge of the case for twenty years, during which he has never had any trouble. If undue pressure on the fundus or traction on the cord are the causes of this displacement, why is it the rarest complication of midwifery? Dr. Atthill has recently revived the view originally taken by Crosse that inversion is due to attachment of the placenta to the centre of the fundus, and on examining the inverted organ in this case I detected a rounded area about as large as a halfpenny on its apex. This area was slightly deeper in colour and less smooth than the surrounding mucous membrane. It may have represented the placental site, but, on the other hand, it may have been caused by inflammatory changes in the part most dependent and most exposed.

2. It is worth noting that the accident was quite unaccompanied by shock, which seems to be regarded as a constant symptom by all but the most recent authorities.

3. The last point to which I wish to direct attention is in connexion with the treatment of this case. The classical method of using repositors is, of course, to begin with the largest size and to end with the smallest, which is introduced into the cavity of the uterus, and remains there until reduction is effected, whereupon it is recovered, often with considerable difficulty, if one may judge by reports. It will be noticed that in this case, as it was not easy to introduce the smallest repositor into the cervix, it was dispensed with altogether. This was done advisedly and on the following line of reasoning: Inversion occurs while the cervix is stretched and its muscular fibres paralysed. If the fundus be not reduced before this paralysis has been recovered from, the restoration of tone to the cervical muscular fibres effectually closes the cervical canal against the return of the uterine body, and this resistance can only be overcome by continuous elastic pressure, as with the repositor, or by forcible dilatation or section. But once the apex of the inverted uterus has come within the cervix the tone of the cervical muscle fibres, which has been overcome but by no means abolished by the pressure of the repositor, bars the way against subsequent extrusion of the fundus, and the effect of the muscular contraction of the containing shell of uterus on the contained partially inverted fundus must be to drive it upwards and to reinvert it. Cases of inversion due to tumour stand in a different category.

CONCLUSION.

The practical point which I wish to make is that in reducing inversion by means of repositors there is, on my theory, no need to use an intrauterine instrument, troublesome to introduce and to withdraw. I suggest that when the fundus has been reduced within the external os the use of repositors may be discontinued, and the uterus will reinvert itself, like an indiarubber cup, turned not quite half inside out. I am well aware that one case is quite insufficient to base a theory upon, but I think my suggestion is at least plausible, and I would ask those who may have an opportunity of testing its value to do so. The experiment can do no harm, and if it does not succeed one can still fall back on an intrauterine repositor and recover it afterwards by means of "elastic bands fastened to the foot of the bed."

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