

ABSOLUTE SHORT CORD DYSTOCIA

by

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Introduction

Obstetrics is a challenging speciality as sometimes a simple solution takes a reverse turn and become a complicated problem. Astute obstetricians must be geared to recognise when a smooth labour becomes rough as sometimes unexplained difficulty is experienced wherein the cause of dystocia cannot be easily explained. Such types of occult dystocia are seen in cases of contraction ring and short cord. The former is always kept in mind and is easily diagnosed by a proper internal examination. The latter is rare and is more difficult to diagnose. But, both conditions can be confirmed by caesarean section which becomes essential to save the foetus. A case was recently encountered when difficulty was experienced during vaginal delivery and the cause for this was attributed to the very short cord diagnosed only during caesarean section. Such short cords causing dystocia have been recently reported by Sinha *et al*, in 1970 from India. Hence, because of the rarity, this case is presented to remind readers that short cords can cause unexplained difficulty in delivering the foetus.

Case Report

Patient UC, Gravida II, was admitted on 6-10-1972 at 11-15 A.M., in the Government Head Quarters Hospital, Bellary, with 7 months' amenorrhoea and history of hand prolapse per vagina since 24 hours. She was an unbooked case and had come from

a nearby village. In her past obstetric history there was a premature stillbirth one year ago.

General Examination: Cardiovascular or respiratory systems did not reveal any abnormality.

Examination of the uterus showed that it was contracting and relaxing and was corresponding to period of amenorrhoea. but foetal heart sounds were not audible. The left hand had prolapsed outside the vulva. As cervix was fully dilated, internal podalic version was attempted under general anaesthesia. It was surprising that although the foetus was dead and also premature, there was difficulty in not only pushing the hand in but also correcting the lie and in bringing down the leg. A more experienced senior colleague was called for help who also failed. Both were of the opinion that the dystocia was due to a contraction ring. Hence, it was thought fit not to attempt even destructive manoeuvres vaginally and an immediate caesarean section was performed.

Laparotomy revealed that the uterus was rotated clock-wise and the left round ligament was situated anteriorly. This proved that partial torsion of the uterus had occurred. The lower uterine segment had not thinned out and was thick, but there was no evidence of contraction ring anywhere. A macerated male baby was extracted by bringing the leg through the incision with difficulty as the placenta also was delivered with the foetus and there was no space in the cord to clamp it and separate the foetus. The umbilical cord was barely a finger away from the placental insertion and measured only 9.8 cms. (Photo 1). The placenta was situated at the fundus posteriorly and was exsanguinated, pale and fleshy. Uterine wound was closed in layers and abdomen was closed in layers. Postoperative period was un-

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Received for publication on 26-2-1973.

eventful, except that there was slight wound sepsis, which healed subsequently. Patient was discharged on 25-10-1972.

Discussion

The standard length of the umbilical cord depends on the height of the foetus and the insertion of the placenta. If the cord is less than $\frac{1}{3}$ of the standing foetal height (Javert) or if less than 35 cms. in length in high insertions and 20 cms in low lying placenta or 32 cms in any type of placenta it cannot permit delivery of the child safely, for to ensure safe and easy vaginal delivery there must be no traction on the placental site. (Gardiner). Hence, it is obvious that a short cord is a definite hindrance to normal labour. Shortness of the cord is relative when the cord is wound tightly around the neck causing hindrance to labour. Actual shortening of the cord invariably causes dystocia while extracting the head or the shoulders or the trunk in breech extractions. Munro Kerr vividly describes a case where occult dystocia occurred during forceps extraction while delivering the shoulders due to a short cord. However, he was lucky enough to discover the cause, clamp the cord which was only 20 cms and save the baby. In Braxton Hick's case of twins, the length of the cord in 2nd twin was 10 cms and in Bayer's the length of the cord was 10.5 cms. In India, Sinha has reported dystocia due to unusually short as well as long cords and in one case he experienced difficulty in extracting the shoulders after Ventouse application. He also was lucky like Munro Kerr to foresee the short cord and save the baby. In his reported case the length was only 15 cms.

In the case described here the cord length was even shorter only 9.8

cms. The shortest cord length reported is 1.5 cms. (Sinha) and although the average length is 55 cms. (Eastman) it may vary from 0.5 cms to 198 cms. Javert stated that if the cord is short it causes not only hindrance to labour, but also foetal anomalies like umbilical hernia ex-amplolos. During traction or during uterine contraction whichever is earlier the cord may rupture causing haemorrhage or the placenta separate prematurely or even the uterus invert suddenly. Thus it can be seen that not only are the symptoms and signs of a short cord uncertain and elusive, but the complications are hazardous and their prognosis grave. In our case even though the cord was so short there were no congenital anomalies nor any placental separation. Smellie 200 years ago stated that occult 'dystocia may be due to a contraction ring or a very short cord can cause arrest of the shoulder after delivery of the head. Although several authors have mentioned occult dystocia during breech extraction there is no reported case. Munro Kerr mentions that a relative or an absolute short cord can cause dystocia because of "riding the cord" posture. He does emphasise that external version may be unsuccessful because of this, but does not go further and state that internal version may also be difficult. The author with his limited experience is of the opinion that short cords do cause unexplained difficulty while performing internal podalic version. In shoulder dystocia after delivering the head the fingers should be inserted to exclude looping of the cord round the neck. In the present case caesarean section could have been avoided if only the short cord-occult dystocia-clinical entity had been thought of and the cord clamped and cut. This simple procedure may not only have permitted easy

version, but also avoided the caesarean section.

Summary

A case of occult dystocia due to presence of an unrecognised short cord (9.8 cms.) is presented which resulted in an unnecessary caesarean section.

Acknowledgement

I wish to thank Dr. J. Leelavathy Reddy, B.Sc., M.D., D.G.O. Professor and Head of the Department of Obstetrics and Gynaecology, Bellary Medical College for permitting me to report this case. I also thank Dr. Ramesh Chandra Naidu, Lecturer in Anatomy Department, Bellary Medical College for his enthusiastic support in photographing this rare specimen.

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See Fig. on Art Paper II