THE MORTALITY AND MORBIDITY ASSOCIATED WITH UMBILICAL CORD PROLAPSE

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A prospective study was carried out on 15 cases of cord prolapse admitted in the study period between January 1995 and December 1995 in Gynae "A" unit at Women and Children Teaching Hospital, Abbottabad. managing 15(H) deliveries annually. Survival rates were assessed by APGAR score at 1 and 5 minutes. The incidence of cord prolapse was 1 in 100 in our study group. H babies were alive when cord prolapse was diagnosed and all except 1 survived inspite of severe bradycardia. Reason for low mortality rate of hospital diagnosed cases with alive fetuses was a short diagnosis to delivery interval (D.D.I.).

INTRODUCTION

Umbilical cord prolapse is defined as descent of the umbilical cord into lower uterine segment adjacent to or below the presenting part. It is an obstetric emergency with a reported incidence varying between 1 in 239 and 1 in 865 births [4,5,7,9]. Much of the literature to date has concentrated on defining predisposing factors for the occurrence of umbilical cord prolapse [1,3,6,8,9]. The reported perinatal mortality ranges from 8.6% to 49% [8,9]. The aim of this study was to stress on factors improving the outcome of deliveries complicated by- cord prolapse.

Cord prolapse occurs with a relatively stable incidence, irrespective of changes in obstetric practices. The fetal outcome is not as poor as might be expected, provided the patient reaches hospital while the fetus is still showing signs of life and the Diagnosis to Delivery Interval (D.D.I.) is short.

MATERIALS AND METHODS

All cases of cord prolapse admitted to Gynae "A" unit in Women and Children Hospital, Abbottabad during the period of 12 months (Jan to Dec 1995) were included in the study.

Details relating to maternal age, parity, gestation, onset of labour, rupture of membranes, presentation, type of delivery, birth weight and APGAR scores were determined.

The diagnosis of umbilical cord prolapse was accepted if the membranes had ruptured and the cord was palpated below' or beside the presenting part on vaginal examination. In all cases clinical efforts were made to reduce cord compression by placing the mother in the knee-chest position and/or by digitally elevating the presenting part. The degree of cervical dilatation at diagnosis and the fetal station were noted; the timing of membrane rupture, cord prolapse and delivery were recorded.

APGAR scores at I and 5 minutes were recorded. APGAR score of <3 at 1 minute and <7 at 5 minutes were taken as markers of potential birth asphyxia [n].

RESULTS

There were 15 cases of umbilical cord prolapse over the course of the study period during which there were a total of 1500 deliveries. Therefore, incidence of cord prolapse in our study group was 1 in 100.

Eight babies were born alive out of which one died after 4 hours due to severe bradycardia. 7 patients had absent fetal heart sounds and absent pulsations in the cord at the time of admission.

All patients were admitted through emergency and were unbooked. All had absent

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membranes and cord prolapse at the time of admission.

7 patients had transverse lie, 2 had oblique lie, 4 were flexed breech and 2 were cephalic presentation with free head.

3 were primigravidae, 5 were multigravidae and 7 were grand multigravidae.

At the time of diagnosis, 7 were fully dilated (46.6%) and 8 were minimally dilated (54.4%). All patients with alive babies were delivered within 40 minutes of admission (D.D.I). All except 2 had cesarean section (86.6%).

The period of gestation was more than 36 weeks in all the cases.

DISCUSSION

Umbilical cord prolapse remains an obstetric emergency but the incidence and factors associated with umbilical cord prolapse have changed little in the past 40 years. There has been considerable emphasis to date on the early detection of cord prolapse [2]. Knowledge of the predisposing factors has done little to reduce the incidence.

The interval from diagnosis to delivers was reassuringly short in the majority of cases in our study group.

There is an acknowledged urgency about cord prolapse which demands delivery as soon as possible. Rapid response times are only possible if the patient is in hospital when the cord prolapse is diagnosed; appropriate obstetric and anaesthetic staff are readily available and a dedicated operating theater for such emergencies exists [2].

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