FETAL DEMISE AND ASSOCIATED FACTORS FOLLOWING UMBILICAL CORD PROLAPSE IN MULAGO HOSPITAL, RETROSPECTIVE COHORT STUDY.

BY

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ABSTRACT

Title: Fetal demise and associated factors following umbilical cord prolapse in Mulago hospital.

Background: Umbilical cord prolapse is a rare obstetric complication that usually necessitates emergency delivery and its associated with high perinatal mortality and morbidity.

The reported perinatal mortality in some studies range between 3-15% (Panter et al 1996, Jongrak et al 2009, Murhy et al 1995, Kahana et al 2004).

In Mulago hospital the level of fetal demise and its associated factors following UCP are not documented.

Objective: The aim was to determine the incidence of fetal demise and describe its associated factors following umbilical cord prolapse in Mulago Hospital.

Methodology

It was retrospective cohort study conducted in Mulago hospital Kampala, 5th floor labour suite. Mothers who delivered between 1st January 2000 to 31st Dec 2009 and their pregnancies were complicated by umbilical cord prolapse with gestational age ≥ 28weeks were considered.

Simple random sampling was used and 438 files of mothers were used for data collection. **And** predictor variables such as diagnosis to delivery interval, mode of delivery, birth weight, and the fetal heart state at the time of diagnosis of UCP, knee chest position, cord position, cervical dilatation and referral status.

Main outcome variable: Fetal death

Data management: The collected Data was double entered into Epi data version 2.1 and exported to Stata 10. The incidence of fetal demise was determined by dividing the total number of fetal death following UCP by total number of cord prolapse per year studied for a period of 10 years.

Univariate analysis: The study sample was described quantitatively as frequencies and percentages and presented in tables.

Chi-square test was used to show the association between the predictor variables and fetal outcome. P-value <0.05 was considered significant.

Multivariate *analysis:* We fit log binomial models to establish the strength of association between the predictor variables and fetal death yielding risk ratios and 95% confidence interval.

Results; Of the 438 cases, 337 (77%) had live babies after 24 hours of birth, 101(23%) lost their babies within 24 hours after birth or were delivered dead. This gives annual cumulative incidence of fetal death following UCP of 23/1000 live UCP cases delivered /year.

The major factors associated with fetal death in pregnancies complicated by UCP included; diagnosis to delivery interval, RR 0.79 (CI 0.74-0.85), mode of delivery, RR 1.14 (CI 1.02-1.28), knee chest position, RR 0.81 (CI 0.70-0.95).

Conclusions:

- The annual cumulative incidence of fetal death in our study was 23/1000 live UCP cases delivery per year for the period of 10years studied.
- Diagnosis to delivery interval <30 minutes was found to be protective against fetal death.
- Putting a mother in knee chest position was found to be protective against fetal death.

Recommendations

- Delivery should be expedited as fast as possible with the aim of shortening diagnosis to delivery interval to <30minutes.
- All mothers with umbilical cord prolapse should be put in knee chest position until delivery is expedited.