

Maternal Fetal Medicine

Predictors of hydrops fetalis by mode of delivery: A retrospective study

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Background: Hydrops fetalis is a fetal condition associated with higher perinatal and neonatal mortality and morbidity. The overall survival rate from diagnosis is currently estimated to be 27% despite advanced intrauterine and neonatal care.

Objective: To assess the association between cesarean delivery and perinatal outcomes of hydrops fetalis.

Methods: This was a retrospective cohort study that retrieved 102 medical records of pregnancies complicated by hydrops fetalis. Transabdominal ultrasound was performed during pregnancy as part of the standard diagnostic modality of intrauterine hydrops fetalis for all participants. Based on the severity of fetal disease as described by obstetric ultrasound findings, pregnant women were divided into four groups: class I, II, III, and IV. The significance of the obtained data was set at two-tailed $p < 0.05$. The odds ratio and 95% confidence interval for perinatal adverse outcomes were calculated using logistic regression.

Results: The incidence of hydrops fetalis was 1.1% in this cohort study. The 7-day survival was 44.1%. There was a significant association between the mode of delivery and overall survival (p -value = 0.04). However, survival was increased in class I and II (55.0%), whereas survival was equally observed in classes III and IV (22.5%). There was a statistically significant association between the class and survival (p -value < 0.001). Birth weight of ≥ 3000 grams was associated with reduced poor perinatal outcomes at 0.3% (p -value = 0.02, 95% CI = 0.14 - 0.85). Admission to the newborn unit was associated with reduced mortality by 2.5% (p -value = 0.04, 95% CI = 1.0 - 6.4).

Conclusion: Cesarean delivery does not improve the perinatal outcomes of hydrops fetalis newborns and should be considered only for maternal concerns.