

Perinatal outcome of vasa previa: 15 years case review from a tertiary maternity hospital

Objective: Ruptured Vasa previa is associated with a perinatal mortality rate of 60% due to fetal exsanguination. Antenatal recognition by ultrasound and planned caesarean section can improve perinatal survival rates above 95%. This study aims to identify the predictors of Vasa previa and to evaluate the impact of prenatal diagnosis on the neonatal outcome.

Design: Retrospective study of all the viable pregnancies who had diagnosis of Vasa previa between Jan 2015 to Dec 2021 in Women's wellness and research centre, Qatar.

Results: 16 patients were diagnosed as vasa previa during the study period. The prenatal detection rate 93.75 % (15/16). The diagnosis was confirmed by visual inspection of placenta post-delivery. The mean maternal age was 34 at the time of diagnosis. 43.75% of the mothers were in the advanced maternal age group (≥ 35 years). 14/16 (87.5%) of these patients were multiparous. 3/16 cases were multiple pregnancies (18.75%). 31% had previous caesarean birth. Out of those who had previous caesarean, 40% had more than one caesarean section. None of the patients had previous history of vasa previa. 25% of the patients conceived through assisted reproduction methods while 75% had spontaneous conceptions. The mean gestational age of diagnosis was 28 weeks. The earliest gestational age of diagnosis was at 21 weeks. 12/16 (75%) had associated placental abnormalities. 68.75% of cases were associated with low lying placenta. Two out of them belonged to placenta accrete spectrum. Other placental abnormalities included velamentous cord insertion and bilobed placenta. None of the antenatally diagnosed vasa previa resolved during the pregnancy. 8/16 (50%) had planned admission for observation and the remaining half were admitted as emergency. 87.5% (7/8) had planned admission between 32-34 weeks of gestation. 7/16 patients underwent a planned caesarean section while 9/16 had an emergency caesarean section. Only half of the patients received antenatal corticosteroids. The mean gestational age of delivery was 34 weeks. All the patients had caesarean births. 52% of the babies required NICU admission. All the babies except the undiagnosed case were admitted as respiratory distress syndrome associated with prematurity. The mean neonatal Hb level was 14.6 g/dL. The undiagnosed case had intrapartum bleeding and acute fetal compromise for which an emergency caesarean section was performed. The baby was born with Apgar 0, 1 at 1 min and 10 minutes. Though the baby survived, she suffered severe Hypoxic ischemic encephalopathy. Only one out of 16 babies required blood transfusion (undiagnosed case).

Conclusion: We recommend routine screening for vasa previa during the antenatal period, planned admission and elective caesarean section in a specialist center.

