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**Vasa praevia: prenatal diagnosis and neonatal outcome**

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**Objective:** Vasa praevia occurs in 1 : 2500 pregnancies and consists of umbilical cord vessels crossing the internal os of the cervix.

The condition has a high fetal mortality (50–95%) and a prenatal detection with planned Caesarean section (CS) reduces morbidity and mortality.

Aim of this study was to detect vasa praevia on screening ultrasound and to optimize pregnancy management.

**Methods:** During second trimester screening ultrasound the internal cervical os was routinely visualised trans-abdominally and vasa praevia was ruled out by color Doppler. Once a vasa praevia was suspected a control examination few weeks later was offered to confirm the finding. A referral to a tertiary centre for planned delivery was then offered.

**Results:** During a 4.5 years study period 21 pregnancies between 19 and 29 weeks of gestation (mean 22+1 weeks) were suspected to have vasa praevia or low-lying placenta with velamentous insertion. 2 were lost for follow up and 2 are still pregnant and all 17 remaining women underwent Caesarean section (mean 35+4 weeks). Two women presented with premature rupture of membranes without bleeding after 37weeks and underwent a CS, whereas the others had a primary intervention. In one case the neonate needed a blood transfusion, all others had no complications. One case was not diagnosed as vasa praevia due to a documented normal finding of the internal os, but had velamentous insertion. In this case the patient had PROM at 35 weeks and the baby died in utero. The survival rate is 94.5% in our study population.

**Conclusions:** Prenatal examination of the internal cervical os and the diagnosis of vasa praevia is easily achieved during second trimester screening. The diagnosis of vasa praevia leads to an intensified antenatal care and reduces mortality. The case with fetal death shows however that there is a need for additional targeted examination of the umbilical cord attachment to the placenta for ruling out low lying velamentous cord insertion.