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Vasa Previa

Vasa Previa ("vessel preview") is a condition in which fetal vessels totally or partially cover the internal cervical os. Risk factors for this condition include velamentous umbilical cord insertion onto the placenta, abnormalities with the placenta itself, and multiparity. Patients may present with rupture of membranes and painless vaginal bleeding. Fetal distress can be evident. Diagnosis is quickly made via doppler ultrasound and treatment is emergency Cesarean delivery.



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Characteristics

Fetal Vessels Over Internal Cervical Os

Fetus holding Vessel over Internal Cervix-certificate

Vasa previa involves fetal vessels in the membranes running over or in close proximity to the internal os of the cervix. This puts the vessels at risk of injury if the membranes rupture and can lead to exsanguination and fetal death.

Risk Factors

Velamentous Umbilical Cord Insertion

Veiled-Man Umbilical-Cord Umbrella

Vasa previa is frequently associated with velamentous umbilical cord insertions. This involves the cord inserting into the chorioamniotic membrane rather than the placenta, which leads to fetal vessels traveling to the placenta unprotected by Wharton's jelly.

Placental Abnormalities

Abnormal Placenta-present

Placental abnormalities such as a bilobate or succenturiate placenta is a variation of placental morphology with one or more accessory lobes developing separately from the main placental body. This can lead to vasa previa, placenta previa, and retained placental tissue.

Multiparity

Multiple Children

Multiparity, or a female who has carried more than one fetus > 20 weeks of gestation is associated with a greater risk of vasa previa.

Presentation

Rupture of Membranes

Ruptured Membranes in Blood The triad of symptoms with vasa previa involves membrane rupture, painless vaginal bleeding, and fetal bradycardia or fetal death.

Painless Vaginal Bleeding

No Pain-bolt signs and Vagina-violets Bleeding The painless vaginal bleeding (fetal blood) occurs suddenly after membrane rupture.

Fetal Distress

Fetus shooting Flare-gun

Fetal distress includes fetal bradycardia (<110 bpm), decelerations or sinusoidal pattern on fetal heart tracings. Fetal death can quickly occur through exsanguination or asphyxiation if fetal vessels are compressed during labor.

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Diagnosis

Doppler Ultrasound Doppler-weatherman using Ultrasound

A transabdominal or transvaginal U/S with color doppler shows fetal vessels overlying the internal os and decreased blood flow within fetal vessels.

Treatment

Emergency Cesarean Delivery

Emergency-Lights C-section

An emergency C-section is usually indicated if there are signs of fetal distress.