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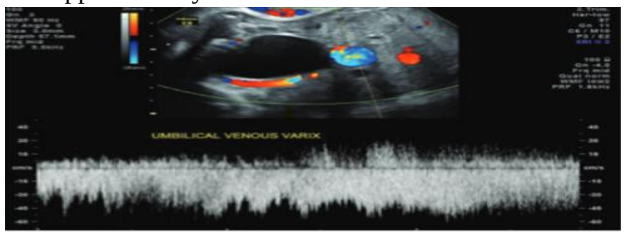
Title: UMBILICAL VEIN VARIX AND ITS UNPREDICTABLE TURN OF EVENTS – A CASE REPORT

INTRODUCTION

- **Definition**: Fetal intra-abdominal umbilical vein varix (FIUVV) is a localized dilation of the umbilical vein.
- **Criteria**: Defined by a diameter increase of 50% compared to adjacent segments or an intra-abdominal diameter greater than 9 mm.
- **Normal Growth Pattern**: In healthy fetuses, the umbilical vein diameter grows linearly from approximately 3 mm at 15 weeks to 8 mm at term.



ASSOCIATED ANOMALIES : Fetal anemia. Aneuploidy in 5-10% of all cases of umbilical vein varix. Others include cardiovascular,intracranial, renal and placental malformations, FGR, oligohydramnios, hydrops fetalis. Turbulent flow &/ thrombosis may contribute to FGR &IUFD.

ETIOLOGY AND PATHOGENESIS. Intrinsic weakness in the wall of the umbilical vein. Any fetal condition that increases umbilical venous pressure dilates extrahepatic portion where there is least supporting structure. Color doppler imaging should be used to rule out other intraabdominal cystic masses and to exclude turbulent flow &/or thrombosis of the umbilical vein.

CASE REPORT

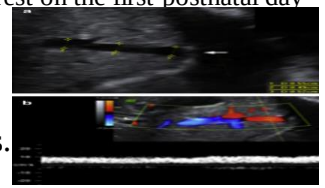
This report highlights two cases of umbilical vein varix (FIUVV) with differing outcomes, approaches, and management at our hospital.

Case 1: 28-year-old primigravida.

- **Diagnosis:** Umbilical vein varix without hemodynamic compromise at 20 weeks gestation.
- **Monitoring**: Serial ultrasound (USG) and weekly mean blood pressure (MBBP) assessments.
- **Delivery:** Labor induced at 37 weeks, resulting in a vaginal delivery.
- **Neonate:** Healthy male infant, birth weight 2.7 kg, APGAR score 9/10.
- **Postnatal findings:** Proximal superior mesenteric vein varix measuring 8 mm identified on USG.

Case 2: 33-year-old, Rh negative primigravida.

- **Diagnosis**: Umbilical vein varix - 7 mm intraabdominal identified at 30 weeks of gestation.
- **Monitoring**: USG at 34 weeks gestation showed turbulent flow and dilated coronary arteries with high velocity flow in ductus venosus.
- **Management**: Admitted for delivery after steroid coverage at the time of diagnosis.
- **Delivery**: LSCS performed, delivering a female infant weighing 2.14 kg with an APGAR score of 6/10.
- **Postnatal**: Baby: O' Rh negative, Hb: 8.7 g/dL, Reticulocyte: 19%. TC, platelets: normal. DCT : negative. Anemia due to hemolysis/ haemorrhage. USG abdomen: Partly collapsed IVC. USG : significant intraventricular hemorrhage in both lateral ventricles, third ventricles and both thalamic region. Neonate succumbed to cardiac arrest on the first postnatal day due to severe anemia, shock, and PDA-related severe pulmonary artery hypertension.

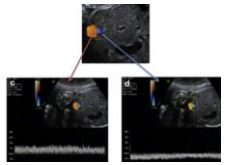


DISCUSSION:

- **Incidence**: FIUVV is a rare condition, occurring in 0.4–1.1 per 1,000 fetuses.
- **Prevalence**: Accounts for approximately 4% of umbilical cord malformations.
- **Diagnosis Timing**: Typically identified in the second or third trimester.
- **Associated Anomalies**: Linked to fetal abnormalities, including cardiovascular, urogenital, and chromosomal defects.
- **Risk Factors for Adverse Outcomes**: Includes turbulent or bidirectional flow, thrombosis, and multiple malformations, potentially leading to stillbirth.

CONCLUSION:

- **Prognostic Factors**: Prognosis depends on gestational age at detection, varix size, turbulent flow, thrombosis, and associated anomalies.
- **Monitoring**: Close USG monitoring with Doppler studies is essential to assess and manage risks.
- **Delivery Planning**: Timely planning of delivery is critical to reduce
- complications.
- **Early Delivery**: Considered in high-risk cases to improve neonatal outcomes.



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