

Images in clinical medicine



Isolated single umbilical artery

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Isolated single umbilical artery

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Image in medicine

The single umbilical artery (SUA) is a congenital anomaly where there is only one umbilical artery in the umbilical cord. It accounts for 0.5-5% of all pregnancies. It can be an isolated finding, or associated with aneuploidy or congenital anomalies. The SUA is called isolated SUA (ISUA) if no chromosomal defect or congenital abnormalities are found. We report a case of a 33-year-old patient, gravida 3 para 2, with no medical history. She consults for the first time in our department during the active phase of labor. The labor was marked by an anomaly of the fetal heart rate indicating an emergency caesarean section giving birth to a female newborn, Apgar 10, 2400 g weight, with no external congenital anomalies. Macroscopic examination of the placenta revealed a single umbilical artery with a

slender cord. Postnatal echocardiography and kidney ultrasonography were normal. The pathogenesis of a single umbilical artery (SUA) is thought to be secondary to a primary agenesis or a thrombotic atrophy of one umbilical artery. Single umbilical artery can be diagnosed in the first trimester by prenatal ultrasonography with

Doppler at the level of the free umbilical cord or at the level of the fetal bladder. Single umbilical artery represents an increased risk of intrauterine growth restriction, prematurity and intrauterine and intrapartum deaths, even in the case of an ISUA. The fetal prognosis depends largely on the severity of the coexisting anomalies.



Figure 1: macroscopic examination of the umbilical cord showing one umbilical artery and one umbilical vein, with slender cord