A case of multiple umbilical cord loops in a fetus with fetal varicella syndrome
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Objective
To describe a fetus with fetal varicella syndrome (FVS) presenting multiple umbilical cord loops.

Methods
It was performed the description of the case along with a literature review.

Results
The mother was an 18-year-old woman in her second pregnancy. She was referred to the fetal medicine unit at 31 weeks of gestation due to history of varicella in the fourth month of pregnancy. The patient denied the use of alcohol, tobacco or illicit drugs. Further sonographic evaluation established the presence in the fetus of clubfeet and polyhydramnios. Sonographic evaluation performed at 31 weeks of gestation showed fetus with estimated weight of 1,117g (at 5th percentile for the gestational age); ILA 25 cm; hyperextension of the left hand; sustained flexion of the lower limbs with medial deviation of feet bilaterally; liver and pericardium with calcifications, and single umbilical artery. Echocardiography showed hyper-refractile focuses located in the pericardium, interventricular septum and mitral and tricuspid valves. STORCH serologies were negative. Fetal ultrasonography performed at 34 weeks of pregnancy also showed the presence of four umbilical cord loops surrounding the right thigh of the fetus. Fetal magnetic resonance imaging performed immediately showed polyhydramnios and confirmed the finding of at least 4 umbilical cord loops in its right thigh. There was also widespread and heterogeneous hyperintense signal of the deep white matter in both cerebral hemispheres, suggesting leukoencephalopathy. Siringohidromielia, starting at level of cervico-thoracic transition, was also noted. The liver was enlarged and there was hyperextension of the left hand, besides congenital clubfeet. Sonographic evaluation at 37 weeks of pregnancy showed no fetal heartbeat. The child was born through induced vaginal delivery. The evaluation by autopsy revealed a male fetus weighing 1,460g. He had left upper and lower limb hypoplasia; reduction defect of the third to fifth fingers on the left hand (there was absence of the ends of the fingers); clubfeet and single umbilical artery. The evaluation of the internal organs was impaired due to tissue autolysis.

Conclusion
FVS is characterized by the presence of defects due to maternal primary infection with varicella-zoster virus. Umbilical cord abnormalities have rarely been described and include single umbilical artery, an abnormality also observed in our case. We believe that some factors known to be associated with the etiology of the umbilical cord loop, as the presence of intrauterine growth restriction and polyhydramnios, may have contributed to the unusual finding of the umbilical cord observed in our fetus.