A case of gastroschisis in a fetus presenting congenital neuroblastoma

Barth MB, Michelon L, Masiero A, Faria AEV, Provenzi VO, De Souza VF, Dietrich C, Targa LV, Zen PRG, Rosa RFM

UFCSPA, Porto Alegre, Brazil

Objective
To report the association still not described in the literature between gastroschisis and congenital neuroblastoma, whose diagnosis was held in the prenatal period.

Methods
A case report followed by a literature review.

Results
The patient was a 20-year-old woman in her second pregnancy. She was referred at 35 weeks of gestation presenting with a fetal ultrasound finding of intestinal loops in the amniotic cavity, compatible with gastroschisis. Her husband was a 21-year-old non-consanguineous man. Obstetric ultrasound showed defective closure of the abdominal wall at right of the umbilical cord, with externalization of intestines, compatible with gastroschisis. In addition, there was presence of a solid, hyperechoic and spherical lesion in the upper pole of the left kidney, in the topography of the adrenal gland, measuring 3.6 cm x 2.4 cm in their largest diameter. Fetal echocardiography revealed no abnormalities. Fetal magnetic resonance imaging showed signs suggestive of liver enlargement and confirmed the finding of gastroschisis. It also confirmed the finding of an isodense mass in T1 sequences and discreetly hyperintense on T2 sequence, in the topography of the left adrenal gland. These findings suggest the possibility of diagnosing neuroblastoma or hemorrhage of adrenal gland. The child, a girl, was born by cesarean section at 37 weeks of gestation, with meconium-stained amniotic fluid, weighing 2,415 g. Apgar scores were 7 in the first minute and 8 in the fifth. On physical examination, it was found externalization of intestinal loops, compatible with gastroschisis. The patient underwent reduction surgery for gastroschisis through Bianchini method at two hours of life. At three days of life, the abdominal wall closure was held. Two days later, the prothrombin time was increased, and the patient required vitamin K. Abdominal ultrasonography disclosed an increased and diffusely heterogeneous liver, and a mass at topography of the left adrenal gland. The pathologic evaluation performed from the liver biopsy revealed histopathology features compatible with metastatic neuroblastoma.

Conclusion
We cannot rule out the possibility that secondary coagulation changes to neuroblastoma that can be associated with the etiology of the gastroschisis observed in our patient, since this defect seems to be etiologically related to a vascular event and the possible period of its emergence (around 3-4 weeks of gestation) occurs almost simultaneously to that proposed for the neuroblasts development in adrenal medulla.