



Case of Gastroschisis of the Surviving Fetus in Monochorionic Twin Pregnancy

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Abstract. The authors describe the case of gastroschisis and Dandy-Walker syndrome of the surviving fetus after the intra-uterine co-twin demise in a monochorionic twin pregnancy.

Key words: Monochorionic twin pregnancy, Intrauterine fetal demise, Gastroschisis, Dandy-Walker syndrome

INTRODUCTION

Gastroschisis is a relatively rarely encountered development anomaly of fetuses. It is assumed that it occurs 1:10.000 to 1:15.000 living fetuses in single pregnancies [4]. In multiple gestations the rate is even higher [3] and it is particularly high in surviving fetuses after the co-twin demise [1]. Gastroschisis seems to be more frequent in monochorionic twin gestations because of the common existence of anastomosis between the fetuses.

CASE REPORT

The subject, a healthy and 26-year-old primigravida in the 9th week of pregnancy, was examined ultrasonographically because of bleeding from the genital tracts. The outlines of two living fetuses were then pictured with a hardly seen septum in between – monochorionic, diamniotic pregnancy.

Another USG examination was done in the 14th week of pregnancy. The living fetus had CRL consistent with its gestational age. At the uterine fundus there was an outline of the dead fetus – CRL = 9 Hbd.

The patient was further examined ultrasonographically in the 28th week of gestation.

Only one living fetus could be seen whose BPD represented the 30th and FL the 28th week of gestation. In the fetal anterolateral wall, right of the umbilical insertion, there was a pathological irregular formation sized 5 x 6 cm. The umbilical insertion was next to the formation, at the level of the normal abdominal wall.

In the 36th week of pregnancy the patient delivered through natural passages a living fetus, female, weighing 2.000 g, with eviscerated intestinal loops and liver as well as large deformations of facial soft tissues. The infant died soon after being born because of additional malformations of the central nervous system (Dandy-Walker syndrome). Cytogenetic tests performed at the Medical Genetics Unit of Lodz Medical Academy proved that the newborn had the normal female karyotype – 46, XX.

CONCLUSION

A possible etiological factor of gastroschisis is an umbilical vein obstruction, mostly of the right one. It leads to segmental tissue necrosis and, consequently, to a defect in the fetal abdominal wall [2, 4].

In the case described above the etiological factor of the umbilical vein obstruction might have been tissue thromboplastins which moved from the dying twin to the surviving co-twin via an existent, functionally active vascular connection between the twins (monochorionic twin pregnancy). Twin thromboplastins might have been also responsible for the pathological changes in the vermiform lobe and facial soft tissue.

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