

DIAGNOSIS OF GASTROSCHISIS IN THE FIRST TRIMESTER OF PREGNANCY - CASE REPORT

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Gastroschisis (gastroshisis) represents evisceration of the abdominal organs, most commonly small bowels, stomach and gonads through the front abdominal wall defect, almost always to the right of the umbilicus (90%) from which it is separated by thin skin bridge. The incidence of this anomaly is 0.5 to 4 per 10.000 liveborn babies. We presented a patient, aged 27 years, who had gastroschisis of the fetus in the 13th week of gestation diagnosed by ultrasound. Ultrasound examination is the method of choice for prenatal detection of fetal anomalies. By differential diagnosis, the possible existence of omphalocele should be eliminated using (2D, 3D) and power Doppler technology which significantly makes the assessment of gynecologist easier during establishment of the final diagnosis. *Acta Medica Medianae* 2011;50(4):40-44.

Key words: prenatal diagnosis; gastroschisis; ultrasonography; fetal anomalies

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Introduction

Gastroschisis represents evisceration of the abdominal organs, most commonly small bowels, stomach and gonads through the front abdominal wall defect, almost always to the right of the umbilicus (90%) from which it is separated by thin skin bridge. Eviscerated intestines are thickened, edematous, sticky, aperistaltic as a consequence of influence of the amniotic fluid on the serosa of intestines (1). The incidence of this anomaly is 0.5 to 4 per 10.000 liveborn babies (2). About 60% of the cases are prematurely born children. This anomaly is more common in male children. Gastroschisis is rare with associated anomalies, although malrotation and malfixation are always present. There are several theories concerning the cause of this anomaly. According to one of them, the interruption in development of omphalomesenteric artery occurs, and according to the other pathological involution of the right umbilical vein, it leads to a weakening of the anterior abdominal wall and consequent protrusion of the intestine through a weakened part. Teratogenic agents for occurrence of this anomaly are smoking and vasoactive medications. Reference is to the aspirin, ibuprofen, alcohol and cocaine abuse and malnutrition. Seasonal occurrence of gastroschisis is associated with teratogenic influence of pesticide and herbicides (2). Ultrasonography is the dominant method in the diagnosis

of this fetal anomaly. Ultrasonographic features of gastroschisis are clear and allow, in most cases, the exact prenatal diagnosis in the first trimester of pregnancy. In the ultrasound examination, the gastroschisis is shown as a mass resembling the cauliflower (small intestines), which floats freely in the amniotic fluid, close to the anterior abdominal wall. Ultrasound examination remains the method of choice in the diagnosis of fetal anomalies, although the application of magnetic resonance imaging (MRI) can provide a more detailed examination of fetus with anomaly of the anterior abdominal wall. The amniotic fluid contains the elevated concentrations of alpha-fetoprotein and acetylcholinesterase (2, 3).

Treatment is strictly operative after a good preoperative preparation.

Case report

The patient I. J., aged 27, worker by vocation, was hospitalized at the Department of Fertility Control in Clinical Center Kragujevac with the diagnosis: Graviditas ml III. Gastroshisis foetii, due to pregnancy termination after the decision of Second Instance Commission of Department of Obstetrics and Gynecology in CC Kragujevac that approved pregnancy termination for medical indications. The Commission was in session at the request of I. J., after the report of the Consilium for Fetal Anomalies of CC Kragujevac reaching the following conclusion Dg Gastroshisis, suggestion: Perform CVS. Ultrasound finding: fetal pelvis leading, BPD 25mm, AC 89mm, 12mm FL, fetal heart rate recorded, normal amniotic fluid, placenta at left lateral side. Gestation week by ultrasonographic findings is 13.5. In front of the anterior abdominal wall the convoluted intestines are observed 20x11mm in size. Stomach is in the abdomen (Figure 1).

