First trimester prenatal diagnosis of cantrell's pentalogy in a twin pregnancy
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Objective
Pentalogy of cantrell is a very rare congenital syndrome. We report a case of cantrell’s syndrome diagnosed using two dimensional ultrasound (us) at first trimester in a twin pregnancy.

Methods
A 31-year-old primigravid woman presented with a twin pregnancy at 14 weeks of gestation for evaluation of structural abnormalities in one co-twin. The marriage was non consanguineous. There was not history of genetic disorders or structural anomalies noted in the both parents. This was her first pregnancy and it was achieved by in vitro fertilization (ivf) and embryo transfer. One embryo was implanted and a monochorionic twin pregnancy was achieved. Ultrasound examinations were performed at 7 and 9 weeks of gestation. At 9 weeks’ gestation one of the twins died. In our first evaluation the ultrasound revealed an alive co-twin with a large omphalocele containing herniated liver, spleen and bowel loops, ectopia cordis and increased nuchal translucency (NT: 3, 1 mm) at 14 weeks.

Results
Genetic amniocentesis was offered but the parents did not accept it and they decided to terminate the pregnancy. Post abortion examination and autopsy confirmed the prenatal sonographic findings. Normal fetal karyotype (46 xy) was detected by dermal biopsy. The postmortem examination revealed left sided diaphragmatic hernia, asplenia, defect in the lower sternum, midline supraumbilical abdominal wall, lumbar lordoscoliosis and lumbosacral meningocele.

Conclusion
Pentalogy of cantrell is seen rarely. The associated defect of omphalocele and ectopia cordis is the major hallmark of this syndrome. Full spectrum consists of 5 anomalies: Anterior diaphragm deficiency, defect in the diaphragmatic pericardium, lower sternum and midline supraumbilical abdominal wall, along with various congenital cardiac abnormalities. The etiology is still unknown. The hypothesis underlying this condition is developmental failure of a segment of the lateral mesoderm between 14 and 18 days after conception. The anterior midline ventral wall defects also may be caused by either monozygotic twinning or vascular dysplasia. Cardiac lesions may vary widely. It may be associated rarely with other central nervous system and craniofacial malformations such as neural tube defects encephalocele, meningomyelocele, anencephaly, exencephaly, spina bifida and craniorachischisis. Prenatal diagnosis is extremely important because the prognosis is poor and the disease may be lethal. If a diagnosis is make by ultrasound, fetal chromosomal analysis is recommended. Following prenatal diagnosis, termination of pregnancy may be offered in severe cases when amniocentesis shows an abnormal karyotype. Increasing awareness of this rare condition can help obstetricians to make a diagnosis before viability and thereby an option of termination of the pregnancy can be considered.