



EDİTÖRE MEKTUP/LETTER TO THE EDITOR

Chorangioma (benign capillary hemangioma) of the placenta

Plasental koriyoanjyom (bening kapiller hemanjiom)

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Cukurova Medical Journal 2017;42(1):192-194.

Dear Editor,

Chorioangioma is the most common benign vascular tumor of the placenta¹. The incidence of the ones having diameters more than 5 cm is 1/3500-1/9.000 dir². Fetal complication like fetal demise, intrauterine growth retardation (IUGR), polyhydramnios, congestive heart failure, anemia, prematurity, nonimmune hydrops fetalis and maternal complications like preeclampsia, and antepartum hemorrhage are the mostly observed fetal complications in the large sized chorioangioma cases^{3,4}. The diagnosis in the prenatal period is made by ultrasonography and Doppler ultrasonography; with the observation of echogenic lesions containing cystic and solid components^{4,5}. Its origin is hypothesized to be the primary stem villi or the placental edges suffering hypoxia due to low blood flow⁶. Placental chorioangiomas are generally located at the placental edges and just below the chorionic plate⁷. The bigger ones close to the insertion site of the umbilical cord may be observed with serious early onset complications, like fetal death in early gestational weeks⁸. In this report, we present a placental chorioangioma case in which the tumor covers ¼ of the placenta and is located very close to the placental insertion site. We also aim to discuss the probable complications that may be observed in the follow up of such cases.

24 year-old, gravidy 2, parity 1 pregnant was channelized to our clinic, with the diagnosis of IUGR, in her 32nd gestational week. It was learned that there was not any problem in the previous

pregnancy of the patient; and her screening test results were normal in the present pregnancy. She had the diagnosis of IUGR since four weeks. The ultrasonographic examination of the patient yielded a single fetus having biometric measures suitable with 30 weeks, normal amniotic fluid amount, and the umbilical artery Doppler examination was within normal ranges. A vascular structure, 48x50mm in diameter, having smooth edges and located just behind the insertion site of the umbilical cord was observed. High blood flow was detected in it by the Doppler ultrasound (Figure 1).

The patient had close observation with Doppler ultrasonography since 32nd gestational week. In the 38th week, the fetal biometric measures were in 35th gestational week range, and the amniotic fluid volume was decreased. Cesarean delivery of a female newborn, having 7 and 9 APGAR scores in the 1st and 5th minutes respectively, was carried. The newborn was 2370g, and 47 cm; had no problems in the follow up. Macroscopic examination of the placenta yielded placental chorioangioma in 4x5 cm dimensions; having definite borders and located in the mid line (Figure 2).

Placental chorioangioma is the vascular neoplasm of the stem villi⁵. The ones having diameter less than 5 cm, rarely cause any complication during the prenatal period. Postnatal histologic examination of the placenta yield prevalence of small-size chorioangioma as 1%^{5,9}. Although the exact mechanism is unknown, the most prominent hypothesis for the etiopathogenesis, is the vascular

proliferation due to stimulation of angiogenesis, or stromal proliferation of the villi as a result of hypoxia⁶. They may be observed in single or multifocal locations in the placenta; and may be diagnosed in any gestational week; but mainly diagnosed in the postnatal period, by the histologic observation of the placenta.

Amir Momeni et al.⁸ examined 171 placenta macroscopically and microscopically for their vascular chorioangiomas and evaluated the clinical data of the patients. They observed multifocal chorioangiomas in 42 cases, diffuse chorioangiomas in 7 cases, and focal chorioangiomas in 56 cases. They demonstrated the significant relation between multifocal and diffuse chorioangiomas and the IUGR and need of newborn for neonatal intensive care unit. Our patient was observed to have a 2-week delay in fetal growth; when she admitted to our clinic in her 32nd week, with her previous diagnosis of IUGR. A 5cm-diameter single, high blood-flow lesion in the placenta was detected with the ultrasound; and any other abnormality was detected neither in the mother nor in the fetus.

Sepulveda et al.⁵ examined 11 placental chorioangiomas cases which were diagnosed prenatally. 9 of them had single fetuses and 2 of them were pregnant for twins. They observed polyhydramnios in 3 of the singleton pregnancies; oligohydramnios and IUGR in four of them; and non-immune hydrops fetalis in one. One of the twin pregnancies was lost due to twin to twin transfusion. The prenatal diagnosis of placental chorioangiomas is made by ultrasonography and Doppler examination. MRI has an important place in the diagnosis and the follow-up of the large chorioangiomas¹⁰. We used ultrasonography and Doppler examination in our case; and observed the normal flow rates in the umbilical and middle cerebral arteries. Polyhydramnios or non-immune hydrops fetalis was not detected; but IUGR was observed. No maternal complications like preeclampsia, or gestational diabetes were present. The patient had a weekly follow up, and examined with the ultrasonography and Doppler ultrasonography.

Alcohol injection to the chorioangiomas having diameter more than 5 cm, or laser coagulation methods were described to prevent intrauterine development of polyhydramnios, non-immune hydrops fetalis or impaired fetal hemodynamics due

to arterio-venous shunts². There is not any sufficient data for the success rates and safety of these procedures. Besides, the complication risks avoid them to be used in routine practice.



Figure 1. Placental chorangioma (red arrow)



Figure 2. macroscopic placental chorioangioma (red arrow).

Although their incidence is rare; the diagnosis of placental chorioangiomas with the ultrasonography and Doppler evaluation is not difficult; so we recommend the investigation of large-sized chorioangiomas in idiopathic IUGR, polyhydramnios and non-immune hydrops fetalis cases. The careful antenatal examination of the

placenta would allow the diagnosis of even small-sized benign hemangiomas; taking place in these cases; and the histologic examination of the placenta must be added to the clinical evaluation.

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