Chorioangioma: A Case Report

Başak Baksu[1], Eser Ağar[1], İnci Davas[1], Canan Tanık[2]

[1]Clinic of Gynecology and Obstetrics, Şişli Etfal Training and Research Hospital, İstanbul
[2]Şişli Etfal Training and Research Hospital, Department of Pathology, İstanbul

Abstract

Background: A case of abruptio placenta as a rare complication of chorioangiomas which are seen in 1% of pregnancies is presented to remind this entity again.

Case: Thirtyseven-years-old patient with 27 weeks and 5 days of gestation was hospitalized due to vaginal bleeding and uterine tenderness. A placenta of 30x25x3.5 centimeter in size with partially detached areas was observed with ultrasonography. A female newborn weighing 1000 gr. with first minute apgar score of four and fifth minute score of eight was delivered with cesarean section.

Conclusion: Since both maternal and fetal prognosis is poor in more than half of the patients with chorioangiomas, antenetal diagnosis and follow up is important. By this way, both maternal and fetal complications can be reduced.

Keywords: Placenta, abruption, chorioangioma

Korioanjiom: Bir olgu sunumu

Amaç: Yüzde bir oranında görülen plasental korioanjiomaya bağlı nadir bir komplikasyon olan dekolman plasenta olgu sunumuyla konuyu tekrar gözden geçirmeyi amaçladık.

Olgu: Otuzyedi yaşında 27 hafta 5 günlük gebeliği mevcut olan hasta vajinal kanama ve uterin hassasiyet bulgularıyla interne edildi. Ultrasonografi incelemesinde 30x25x3.5 santimetre boyutlarında, yer yer dekole plasenta izlendi. Sezaryen doğum ile birinci dakika dört, beşinci dakika sekiz apgar skorlu, 1000 gram, canlı bir kız bebek doğurtuldu.

Sonuç: Olguların yarısından fazlasında prognozun kötü olmasından dolayı korioanjiomların antenatal tanısı ve takibi önemlidir. Böylece hem maternal hem de fetal komplikasyonlar en aza indirilebilir.

Anahtar kelimeler: Plasenta, dekolman, korioanjiom

Background

Placental chorioangiomas are seen approximately 1% of all pregnancies and are usually asymptomatic.[1] Although their basic features are excessive proliferation of endothelial cells, its' etology has not been defined clearly.[2] It is the most frequently seen among the placental tumors and it is defined as ''large'' if the tumor diameter is larger than 5 centimeters and seen rarely. It has a clinical importance when the big chorioangiomas have fetal and maternal complications.[3]

Correspondence: Dr. Başak Baksu
Nato Yolu Cad. Doktorlar Sitesi A9 D: 9 Çengelköy-İstanbul
e-mail: basakbaksu@yahoo.com

Our case was operated for placental abruption and placental chorioangioma was detected and with this case presentation we aimed to review this pathologic condition.

Case

The thirtyseven years old patient with G4, P2, and 27 weeks 5 days of gestation presented to our clinic due to vaginal bleeding, severe bellyache and lumbargo. Physical examination showed that she had vaginal bleeding and uterine tenderness. Ultrasonographic examination revealed a fetus who was alive, singleton, having a breech presentation and a normal amniotic index, and whose size was harmonious with week 28. It has been observed that the dimension of the placenta was 30x25x3.5 cm, and it had partial detached areas. The estimated fetal weight was calculated as 1040 grams. The results of laboratory tests were as follows; hemoglobine 9.7 mg/dl; hematocrite 30%, leucocyte count 155000//ml, fasting blood glucose 80 mg/dl. The obstetric follow-ups of the patient, who had no specific features in the history of herself and her family, didn't show any pathology during the screening tests at weeks 11-14 and 16-18 and second-level ultrasonography.

The patient was immediately taken into operation with a preliminary diagnosis of abruptio placenta. A female newborn weighing 1000 gr. with a one-minute apgar score of four and five-minute apgar score of eight was delivered by Cesarean section. The baby was transferred to the intensive care unit for neonates due to prematurity, respiratory distress syndrome and anemia. The patient needed two units of whole blood transfusion since her post-operative hemoglobine level was found 7.8 mg/dl. The mother was discharged from the hospital at the post-operative day eight with improvement, and the baby died at the post-partum day eight due to heart failure.

Pathological examination revealed a placenta of 30x25x3.5 cm macroscopically. A single solid cream-colored mass was observed, holding a major part of the placenta with full bleeding. Partially open and partially closed capillary structures with various diameters were observed in the loose micsoid stroma at the several sections taken. Occasionaly hyalinisation, microcalcification and a

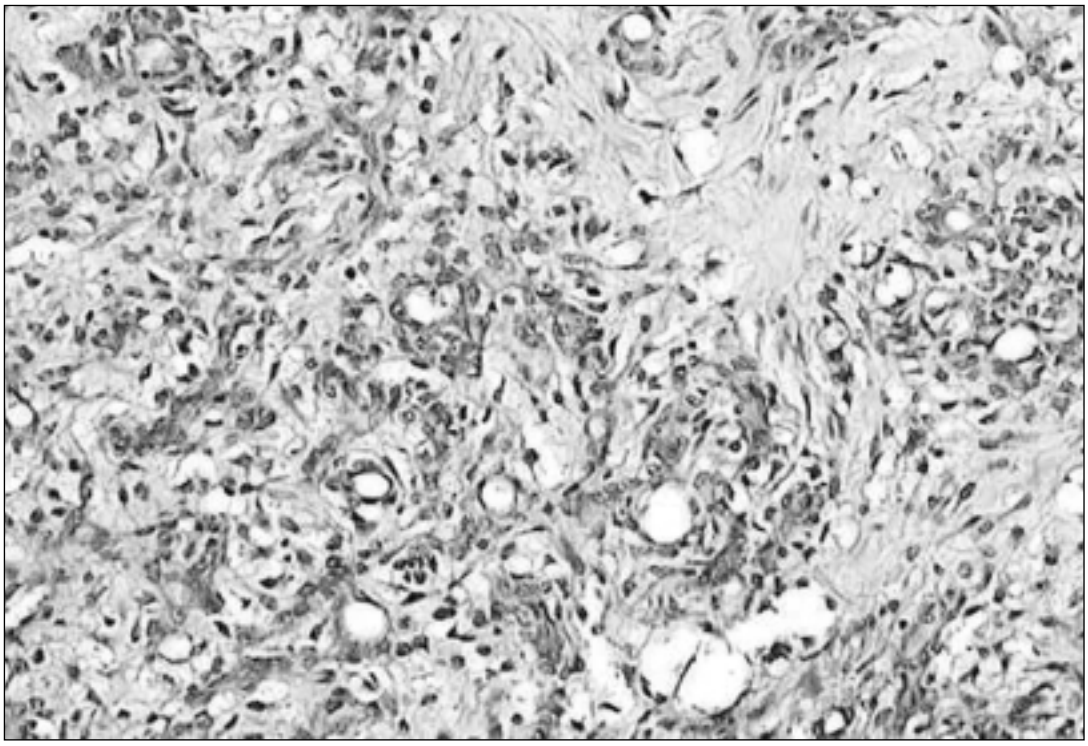

Figure 1. Structure of narrow vessels full of erytrocytes inside the loose stroma (**HE x200**).

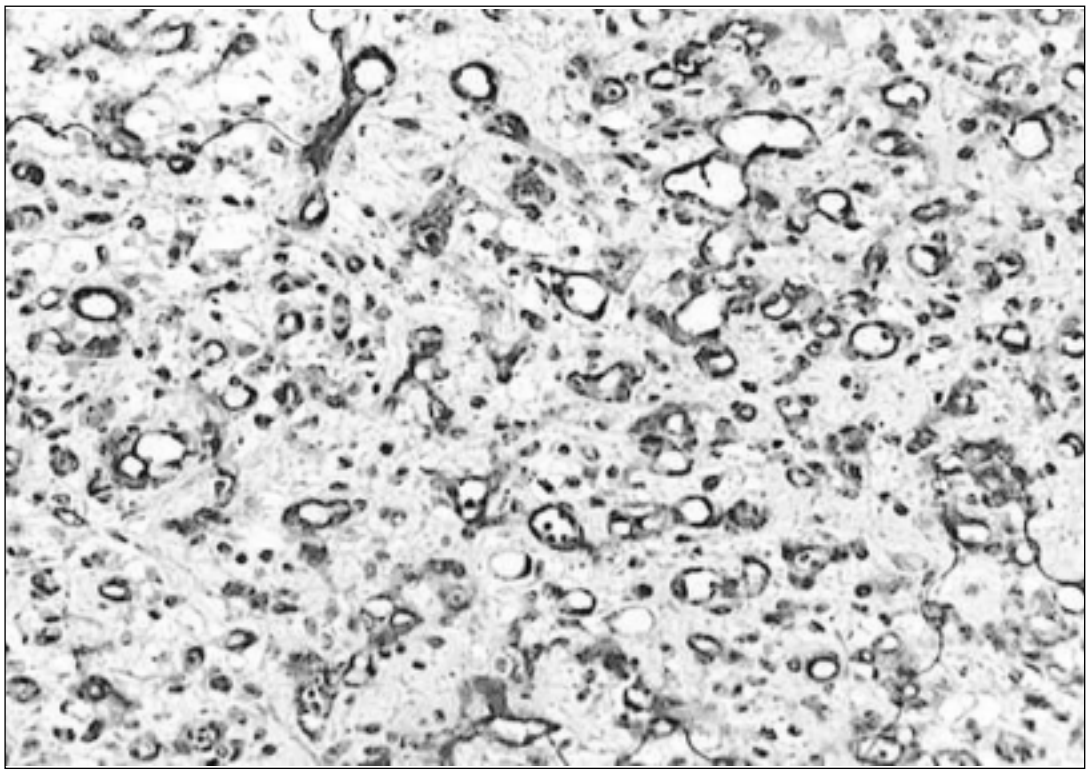

Figure 2. Vessel structures stained with CD31 (**CD31 x200**).

few mitoses were seen. The patient was assessed by immuno-histochemical assays like Cytokeratine (DAKO), Factor 8 (neomarkers), CD31 (DAKO), AFP (DAKO), and Ki-67 (MIB-1). Broad intensive staining was evaluated by CD31, and poor staining by Factor 8. No cytokeratine and AFP evaluation were carried out for staining. As a marker of proliferation, a staining up to 30% was detected at Ki 67. Based on these findings, the case was considered to have choriangioma (placental hemangioma).

Discussion

Placental chorioangiomas are benign tumors of hemochorial placenta. It is thought that after defective angiogenesis malformations are formed and increased growth factor expression has a role in choroangioma formation.[3] The incidence increases with parallel to maternal age. It is mostly seen above 30 years of age.[3] Our case was 37 years old. It is reported that patients with chorioangioma the cases are 72% female.[3] In our case 1000 gram live female baby was delivered.

Chorioangiomas may cause many maternal and fetal complications. The most frequently seen complications are polyhidramniose and threatened abortion.[4] Other complications are fetal disseminated intravascular coagulation, fetal anemia, fetal cardiomegaly, fetal failure to thrive, preeclampsia, placental detachment and maternal hemolysis.[2] In our case there was a rare complication of placental detachment. Anterpartum bleeding may be the result of hemongioma tearing located on the maternal site or rupture of the tumours vascular pedincule. Retroplacental hemorrhagy i.e detachment may be caused by the change in hemadynamics which is a result of stress increased by choriangioma topether with uteroplacental vascularisation in the intervillous space. This idea was proposed by Kohler et al in 1976, however definitive evidences still could not be defined.[2] Complications that can be seen in fetus are cardiomegaly due to the fetal volume load, and blood cell degradation, hypoxia, trombocytopenia, anemia and umblical vein dilatation.[5] In our case the baby died due to heart failure on postpartum 8th day.

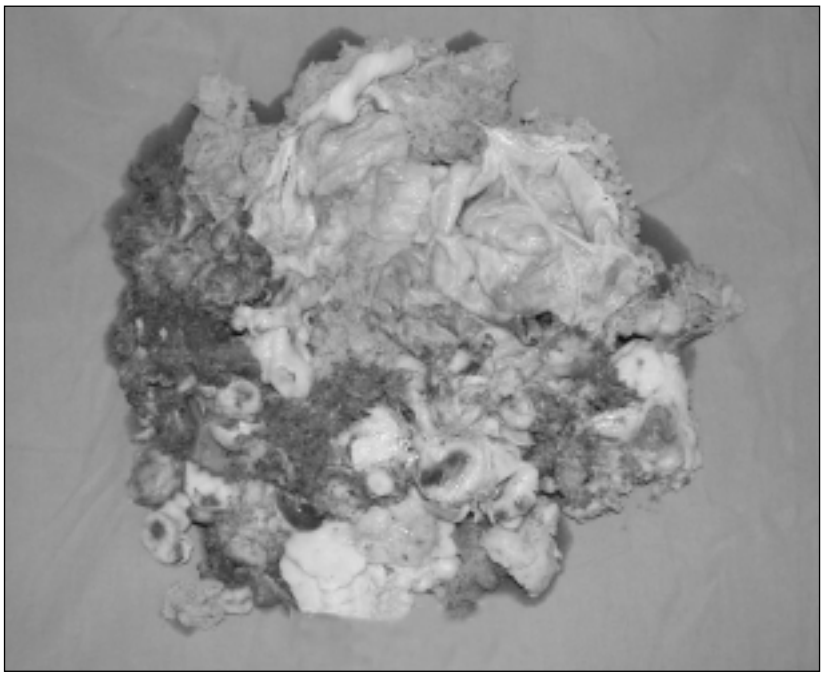

Figure 3. The macroscopic view of the placental chorioangioma in the patient who underwent Cesarean section due to abruptio placenta.

It is of clinical importance that when the chorioangioma size is larger than 5 centimeters the complication rate increases. In our case the placental diameter was measured as 30x25x3 cm. In the literature the avarage diameter is 6.5 cm (4-13 cm)[6,7] when compared with the literature our placental size is much more bigger.

In diagnosis ultrasonography and color doppler are important.[6] Chorioangiomas can be differentiated from other placental pathologies with color doppler and prenatal diagnosis can be made. In color doppler investigational diagnosis was made on 23. gestational week and in the cases both increase in internal vascularity and nutritional vessels localized in the tumor were seen.[7,8]

Antenatal diagnosis and follow-up is very important as the prognosis in more than half of the chorioangioma cases is poor. Therefore both the maternal and fetal complications can be reduced to minumum.

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