Normal evolution of pregnancy complicated by a giant placental chorioangioma

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Summary

Placental chorioangioma is a benign vascular tumour of placental origin. Here The authors report a case of a pregnant patient who presented placental chorioangioma measuring 11 cm in the greatest diameter at 37 weeks at term and in labor.

Key words: Placental; Chorioangioma; Pregnancy.

Introduction

Placental chorioangioma is also called placental hemangioma (angioma of placenta). It is a benign vascular tumour of placental origin arising from primitive chorionic mesenchyme. It is also believed that it is caused by the part of the vascular and stromal active hyperplasia, that lose their normal relation to decidual tissue. Some also believe that it is formed by dysplasia of allantoic vascellum [1]. Most cases of placental chorioangioma tend to be sporadic and usually found incidentally, and the diagnosis needs to be confirmed according to the ultrasound and pathological findings. The authors present a case of a patient with giant placental chorioangioma that delivered spontaneously. Clinical presentation and the pathological findings, differential diagnosis, clinical outcome, and therapeutic approach are discussed in order to improve the understanding of the disease.

Case Report

A 23-year-old patient was admitted to the Obstetrics and Gynecology of the present hospital at 37 weeks because of threatened labor. Ultrasound showed a single live fetus corresponding to 38 weeks of gestation with amniotic fluid index (AFI): 18 cm. Normal AFI ranges from eight to 20 cm. There were no gross structural abnormalities. Placenta was on the anterior wall upper segment, grade II. A well-defined mass measuring 9.8 x 9.2 x 8.5 cm^3 different from the rest of the placenta was seen bulging on the fetal side. External fetal monitoring showed a heart rate ranging from 120-140 bpm. Patient went into spontaneous labor and delivered a healthy female baby weighing 3,400 g with Apgar score of 10 at one minute. The placenta weighed 560 g and measured 26 x 24 x 3 cm. The umbilical cord was 40 cm long and 2.5 cm wide with two arteries and one vein. The placenta presented a brownish hemorrhagic mass of firm consistency, measuring 11 cm in the greatest diameter, reaching the margin of the placenta (Figures 1A and 1B). Histological examination of the placental tumor showed the features of chorioangioma.

Discussion

Chorioangioma is a benign vascular tumor of the placenta arising from primitive chorionic mesenchyme. Because of most cases chorioangiomas are asymptomatic, small in size, and buried in the placenta tissues, they are overlooked or easily misdiagnosed. It was formerly thought that it's incidence was extremely low. With the increasing ultrasound and postnatal placental pathological examination during pregnancy, the estimated incidence is 0.7%~1.6% [2].

Typically a chorioangioma is located near the insertion of the cord, and protrudes into the amniotic cavity. Three histological types are recognised: angiomatoid, cellular, and degenerative.They tend to occur on the fetal side of the placenta, Large (> five cm) chorioangiomas are much rarer and are often associated with maternal and/or fetal complications. Large chorioangiomas cause several obstetric complications, including premature labor, placental abruption, polyhydramnios, fetal hydrops, fetal growth restriction, fetal hepatosplenomegaly, cardiomegaly, congestive heart failure, and fetal death. The neonatal complications are hydrops fetalis, microangiopathic hemolytic anemia, and thrombocytopenia [3]. In this case the authors present natural childbirth with giant placental chorioangioma and a healthy fetus in their department.

Color Doppler ultrasound is the only effective means of prenatal diagnosis of hemangioma and definitive diagnosis subject to placental pathological diagnosis. Chorioangiomas are usually treated with expectant management, as the majority of tumours are asymptomatic. Small tumours are often monitored with ultrasound ~ every six to eight weeks, whereas large tumours require serial ultrasound examinations more frequently ~ every one to two weeks. Some tumours may even regress spontaneously during pregnancy [4].

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Figure 1-A. — Placental chorioangioma.

Figure 1-B. — Placental chorioangioma.

Novel intrauterine treatment options include intravascular transfusion, fetoscopic devascularization, microcoil embolization, and intravascular injection of absolute alcohol.

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