CASE REPORT

Chorioangioma from Poly to Oligohydramnios

Pranay R Shah

Consultant, Gynecologist and Endoscopist, Bhatia Hospital, Mumbai, Maharashtra, India

Correspondence: Pranay R Shah, Consultant, Gynecologist and Endoscopist, Bhatia Hospital, 201, Enterprise Apartments Forjett hill road, Mumbai-400036, Maharashtra, India, Phone: +91-9820060177, e-mail: drpranay@hotmail.com

Abstract

We describe a case of chorioangioma in which the tumor was vascular initially leading to acute hydramnios. However, spontaneous decrease in vascularity of the tumor (autoembolization) lead to a gradual decrease in liquor volume allowing expectant management.

Keywords: Chorioangioma, placental tumor, polyhydramnios, oligohydramnios.

INTRODUCTION

Chorioangioma is the most frequent nontrophoblastic tumor of the placenta, with a reported incidence ranging from 0.01% to 1.3%. The outcome of pregnancy depends on the vascularity of the angioma. While vascular and hypoechogenic tumors are associated with higher incidence of pregnancy complications, favorable outcome is expected in avascular and hyperechogenic tumors. Maternal problems are hydramnios and preterm labor, while fetus can undergo hydropic changes and fetal death.

We describe a case of chorioangioma in which the tumor was vascular initially leading to acute hydramnios. However spontaneous decrease in vascularity of the tumor (auto-embolization) lead to a gradual decrease in liquor volume allowing expectant management.

CASE REPORT

Mrs SS, 36 years, married for 10 years elderly primigravida was admitted to Bhatia hospital with sudden onset abdominal distension and discomfort for 3 days and orthopnea since 1 day. There was no H/O of leaking or bleeding PV. She had primary infertility, conceived after IVF-ICSI. Her LMP was on 23/04/01 corresponding with 24 weeks gestation. The pregnancy so far was uneventful.

On admission she had tachycardia (110/minute), respiratory rate was 40/minute, afebrile and normotensive. The uterus was larger than period of amenorrhea (Fundal height 35 cm = 40 weeks gestation and abdominal girth 37 inches = 37 weeks gestation). Abdomen was tense and tender. Fetal heart-rate was 144/minute Cervix was posterior and closed on PV examination.

USG showed 25 weeks single pregnancy with marked polyhydramnios. No gross fetal anomalies were noted. Placenta showed 7× 6 cm focal hypoechoic lesion in right antero-fundal aspect of placenta (Fig. 1). Doppler showed marked vascularity consistent with angioma (Fig. 2). Therapeutic tap was performed and 1700 cc clear liquor drained. Examination of amniotic fluid

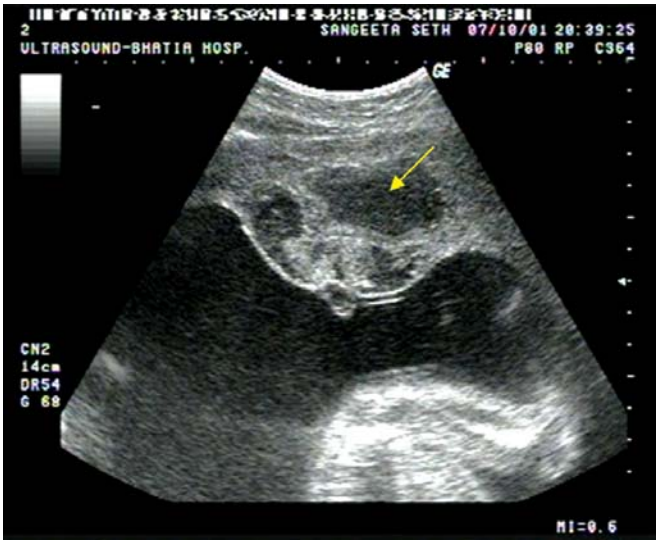

Fig. 1: USG showing 7 cm placental lesion with large cavernous sinuses

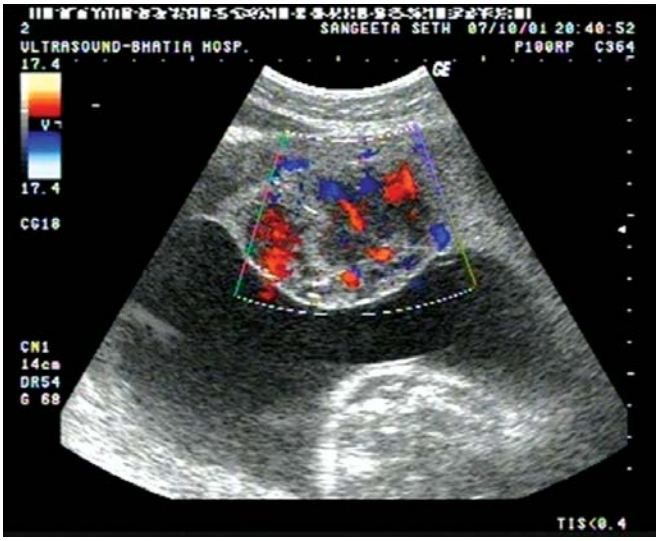

Fig. 2: Doppler showed marked vascularity consistent with angioma

Table 1: Serial USG and color Doppler examination

Weeks	*Gestation (weeks)*	*Gestation age*	*F WT (gm)*	*Liquor/tumor*	*Doppler flow hemangioma*	*Doppler UA*
Adm	24	25	–	++++ 7 cm hypoechoic	+++	N
1	25	26	–	++++	+++	N
2	26+	26-28	1200	++++	+++	N
3	28	29	1400	++ increased echogenecity	+ Coalescence of vascular spaces	Mild resistance No loss or reversal in diastolic flow
4	29	30	1500	+ 7 cm hyperechoic	Reduced flow	Mild resistance
5	30	30-31	1700	Mod oligohydramnios	No flow	Mild resistance
6	31	31-32	1700	Severe oligohydramnios	No flow	Mod resistance

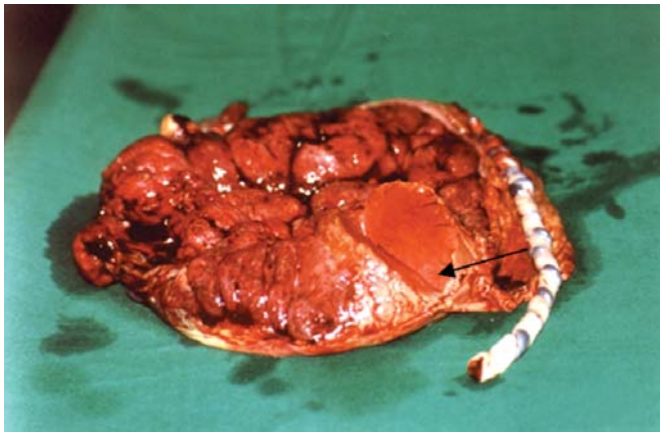

Fig. 3: Gross specimen showing large placental tumor—Chorioangioma

was unremarkable. Fundal height decreased by 3 cm and abdominal girth by 5 cm. Patient was treated conservatively with bed-rest, Duvadilan drip, antibiotics and indomethacin 25 mg tds.

Abdominal distension gradually increased over the next week. Repeat USG showed marked polyhydramnios with unchanged placental lesion. Second therapeutic tap was done after 1week. 750 ml of opaque, brownish amniotic fluid was drained. Due to a suspicion of infection, fluid was sent for culture, which was negative.

Conservative therapy was continued. Serial USG and color Doppler results are summarized in Table 1. Due to gradually decreasing liquor volume and increasing resistance on Doppler and borderline NST, decision for emergency LSCS was taken. 31 weeks 1.5 kg female child was delivered. Liquor volume was scanty. Placenta showed a 7 cm solid well-circumscribed spongy lesion on the fetal surface (Fig .3). Maternal surface was normal. Umbilical cord was normal. Histopathology of placenta showed nodule with extensive infarction, composed of network of capillaries and few large vessels consistent with chorioangioma.

Mother's postoperative recovery was uneventful. Baby was shifted to NICU, requiring ventilatory support for 10 days. One dose of surfactant was administered on day 2. In spite of mild sepsis, recovered and was discharged in good health on 30 postnatal day. Close antenatal supervision, proper timing of delivery based on serial ultrasound and color Doppler examinations and excellent neonatal care assured a healthy mother and neonate.

DISCUSSION

Chorioangioma of the placenta is a benign vascular tumor arising from the primitive chorionic mesenchyme whose etiology is unknown. The incidence in a large retrospective study of 22,439 unselected placentas was found to be 0.61%.[1] Most chorioangioma are diagnosed following delivery. However, increased alpha-feto-protein, or β-hCG can arouse suspicion. Ultrasound is the mainstay in diagnosis. Color Doppler imaging not only helps differentiate Chorioangioma from other lesions like degenerating fibroid, placental teratoma, decreased twin, placental hematoma but also is useful in the prenatal follow-up of these cases.[2]

Most chorioangioma are of no clinical significance. Those measuring more than 5 cm in diameter may be associated with complications that can affect the mother, the fetus or the neonate. Maternal risks are mainly polyhydramnios and preterm delivery.[3] Fetal congestive heart failure may develop because of the increased flow through the low resistance vascular channels in the chorioangioma acting as an arteriovenous shunt. Other associated complications include hydrops, anemia and growth retardation.[4]

Polyhydramnios has been treated by therapeutic amnio-drainage[5] and indomethacin therapy.[6] Various interventions have been tried to prevent or treat complications of chorioangioma. Prenatal treatment by ultrasound guided interstitial laser therapy,[7] microcoil embolization[8] and alcohol injection[9] have been described in literature.

In the present case the tumor was vascular initially leading to acute hydramnios. However, spontaneous decrease in vascularity of the tumor (autoembolization), lead to a gradual decrease in liquor volume, allowing expectant management. Therapeutic amniodrainage, indomethacin and timing the delivery depending on USG and color Doppler helped us to optimize the outcome.

CONCLUSION

Large chorioangioma are rare and it is not necessary that complications would always ensue. Regular monitoring by serial ultrasound, Doppler and fetal echocardiography is recommended to pick up complications early so that they can be dealt with effectively.

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