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PLACENTAL CHORIOANGIOMA

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ABSTRACT:

Introduction :

Placental Neoplasms are classified in to two categories based on their origin: Trophoblastic and non-trophoblastic. Non trophoblastic tumors are common and benign ones include chorioangioma and teratoma. Chorioangioma of placenta is the commonest benign tumor of the placenta. It consists of a benign angioma arising from the chorionic tissue. It has been found to be associated with many serious complications such as nonimmune hydrops, congenital abnormalities, hemolytic anemia, polyhydramnios, IUGR, and IUFD.

Methods:

A 21 years old pregnant female 2nd gravida with 32 weeks of gestation presented to Ob/Gy department at L.G. Hospital with complaints of abdominal distension for 2 weeks associated with lower abdominal pain for 2 days. She had a history of one full term normal delivery without significant peripartum events. General examination was unremarkable. P/A was grossly enlarged with Fundal height more than gestational age, fetal heart rate was 144 /min. Per vaginal examination revealed 2 cm dilated and early effaced cervix with intact membrane. USG revealed a single live fetus with 32 weeks of gestation and without structural malformations and hydrops AFI of 42 cm hyperechoic mass of 8.5 *6.5cm on placental surface, near cord insertion with hypervascularity, separate from placental tissue suggestive of placental chorioangioma. Estimated fetal weight was 1.6kg. After a course of dexamethasone, therapeutic amniocentesis was done; She developed gross polyhydramnios after 4 days of amniocentesis followed by spontaneous preterm normal labor and delivered 1.7kg live baby without peripartum complications. Histopathological analysis of the mass revealed proliferation of capillary sized vascular channels with endothelial cells, hemorrhagic and focal area of calcifications. The neonate was admitted to NICU and was discharged after a week without complications.

Conclusion :This case illustrates the prompt and accurate diagnosis of placental chorioangioma can help apply timely interventions improving patient outcome.

Keywords: placental chorioangioma

Introduction:
Placental chorioangioma or placental hemangioma is the most common benign non-trophoblastic tumor. It is derived from the excessive proliferation of small vessels in villous stroma with variable association of stromal solid areas. The estimated incidence of placental chorioangioma is about 1% in microscopely examined placentas. Most chorioangiomas are benign incidental findings, but as size increases, there is an increasing risk of adverse outcome due to high output heart failure (cardiomegaly, polyhydramnios, increased velocity in the middle cerebral artery, fetal hydrops) from arteriovenous shunting, platelet trapping (consumptive coagulopathy), and iatrogenic preterm delivery. In this case report we have presented this rare case of chorioangioma which was diagnosed incidentally on ultrasonography.

Keywords: placental chorioangioma

Case report:
A 21 years old pregnant female 2nd gravida with 32 weeks of gestation presented to us with complains of:

- • Excessive abdominal distension for 2 weeks
- • Lower abdominal pain with respiratory discomfort for 2 days

The female had a history of one full term normal delivery without peripartum significant events. There was no other significant obstetric, menstrual, past family and personal history.
On examination:

- • Vitals were within normal limits
- • General examination revealed pitting edema in bilateral lower limbs extending up to medial malleolus
- • Respiratory rate 24/min
- • Rest general examination was within normal limits

Obstetric examination

- • Skin: marked stria gravidarum
- • P/A: grossly enlarged
- • Fundal height was more than gestational age.
- • The uterus was irritable
- • fetal heart rate which was 144 /min.
- • Per vaginal examination: revealed 2 cm dilated and early effaced cervix with intact membrane.

Workup
All routine blood investigations including Complete blood counts, blood biochemistries and glucose tolerance test were normal.
USG
1) single live fetus with 32 weeks of gestation and without structural malformations and hydrops 2) Amniotic fluid index of 42 cm and single deep vertical pocket pocket of 13 cm

3) hyperechoic mass of 8.5 *6.5cm on placental surface, near cord insertion with hypervascularity, separate from surrounding placental tissue suggestive of placental chorioangioma
4)normal fetal Doppler and estimated fetal weight was 1.6kg.
After corticosteroids the therapeutic amniocentesis was done but again, she developed gross polyhydramnios after 4 days of amniocentesis. She had spontaneous preterm normal labor and delivered 1.7kg live baby without peripartum complications to both. As the neonate was low birth weight it was admitted to NICU and was discharged after a week without complications.

Placental Histopathology

1. Macroscopic examination: There was a specimen of a single placenta measuring 24 *18*3 cm with attached cord and membrane. It had one well circumscribed, nodular mass is identified on fetal surface measuring 10*9*3.5 cm. The cut surface is brownish white, hemorrhagic and solid.The mass is well demarcated from adjacent placental disc tissue suggestive of chorioangioma.
2. Microscopic examination: Sections from nodular mass revealed proliferation of capillary sized vascular channels with endothelial cells, hemorrhagic and focal area of calcifications. No other significant pathology in placenta, cord and membrane were found.

Discussion:

Neoplasms of placenta is classified in to two groups i.e., Trophoblastic and non-trophoblastic. Non trophoblastic tumors are common and benign ones include chorioangioma and teratoma. Chorioangioma was first diagnosed by Clarke in 1798. Small chorioangiomas are present in 1% of examined placenta while tumors reaching clinically evident dimension are relatively uncommon. Mostly tumors are discovered only by histology Histologically chorioangioma may be classified into 3 types i.e., vascular, cellular and degenerative. vascular is the most common type of chorioangioma. There can be maternal complications like polyhydramnios, PROM, cervical incompetence, preterm delivery, abruption, malpresentation and PPH. The possible explanations behind polyhydramnios are
1) Increased intra vascular pressure caused by blood flow obstruction by a tumor near chord leads to transudation in amniotic cavity.
2) Increase transudation may be because of large surface area of tumor.
3) Shunting of blood flow into blood vessels of tumor.
There can be fetal complications like congestive cardiac failure, thrombocytopenia, NIH, hemolytic anemia, IUGR, brain infarct, cerebral embolism, IUD, NND.
On USG the differential diagnosis of chorioangioma are:
1) Inter villous thrombi - no color flow and surrounded by placental tissues.
2) placental hemorrhage - no flow and evolves over time
3) Venous lakes - minimum flow and subtle motion
4) Gestational trophoblastic disease - cystic, heterogenous mass with abnormal or no fetus in histopathology the differential diagnosis of chorioangioma are chorioangiosis and chrioangiomatosis. Suspicious cases can be diagnosed by MRI. Large chorioangioma with low echogenicity and blood flow may undergo spontaneous infarction. Clinical outcome depends on intra tumor blood flow and fetal hemodynamics. Generally, the prognosis is good without hydrops and treatment is only required when associated with gross polyhydramnios or fetal hydrops-anemia. Expectant management is recommended for in form of serial USG. In case of feto-maternal complications, possible interventions like serial fetal transfusion,

laser coagulation of vessels supplying tumor, endoscopic surgical devascularization and chemo sclerosis with absolute alcohol can be used

Conclusion

Though large chorioangiomas are a rare finding, they can progress to cause a number of fetal and maternal complications which may lead to adverse outcomes in a pregnancy. Timely and proper diagnosis by USG with Doppler can provide a window of opportunity to apply interventions and prevent adverse outcomes.

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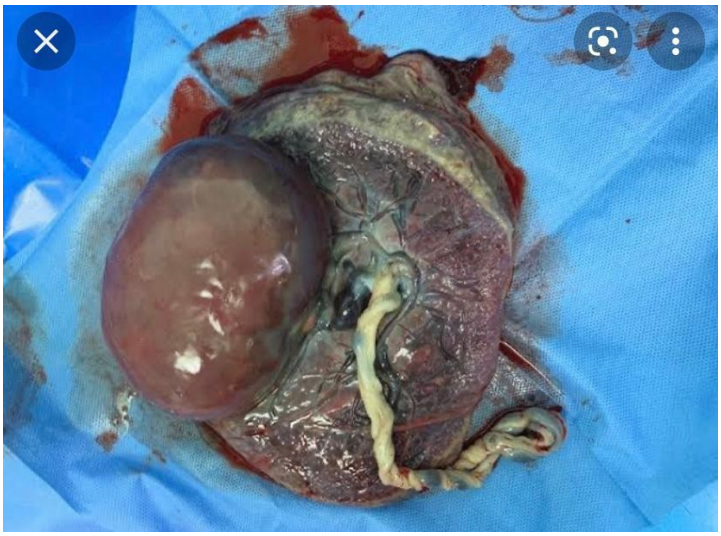

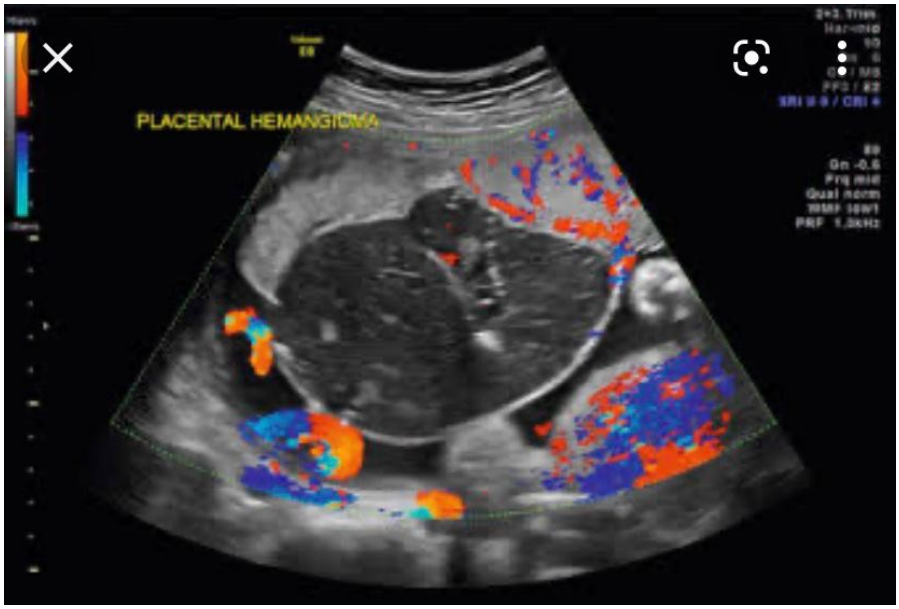

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