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**CASE REPORT**

**CHORIOANGIOMA OF PLACENTA.A RARE CAUSE OF POLYHYDRAMNIOS: A CASE REPORT**

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**ABSTRACT**

**Background:** Placental chorioangiomas are benign vascular tumours and are the most common placental tumours consisting of blood vessel and stroma that proliferate beyond normally developing chorionic villi.

**Aim:** Need of early diagnosis for better management of mother and child wellbeing.

**Material And Method:** A case of 32 year old multigravidae with 34 week period of gestation with usg showing placental tumour, its presentation, intraoperative finding and histopath examination is discussed in report.

**Conclusion:** Incidence of this condition is around 1%, this type of tumour has no malignant potential, but adverse maternal and fetal outcome are associated with large chorioangioma that warrants early diagnosis and follow-up and timely institutional delivery.

**Result:** The presentation of this tumor can vary but followup and timely action required for better perinatal outcome

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**INTRODUCTION**

Placental tumours are broadly divided into trophoblastic and nontrophoblastic tumours. The latter include chorioangiomas, teratomas, haemangioma and haematomas

Placental chorioangiomas are benign vascular tumours and are the most common placental tumours accounting to 1% (Amer HZ *et al*, 2010).

It consists of blood vessel and stroma that proliferate beyond normally developing chorionic villi. Chorioangioma is believed to arise by 16th day of fertilization (L. A. Bracero *et al*, 1993), it arise from malformation of primitive angioblastic tissue of the placenta , mostly a native placental tumors with inability to metastasise (Wehrens X *et al*,2004) Small chorioangioma are more common and asymptomatic; large placental chorioangiomas are rare 1:3500-1:9000 births (Quintera RA *et al* 1996) and may lead to pregnancy complications and poor perinatal outcomes (Wallenburg HC *et al*,1971) including fetal anaemia, hydrops fetalis, growth restriction, polyhydramnios (most common complication) and preterm delivery fetal heart

failure, thrombocytopenia, IUD (A.A Marchetti,1939; Sreelakshmi *et al*, 2012; Zalel Yet *al*, 2002; Zabka TS *et al*, 2006) We report a case of a large placental chorioangioma, presented with polyhydramnios with timely management and thus leading to successful outcome.

**Case Report**

A 32year old G3P2L2 at 34 week period of gestation with regular ANC at private hospital and taken her Fe and Ca supplements got immunized with 2 dose of TT injection she had previous normal deliveries at term gestation, presented to us with preterm labor with excess liquor, on examination abdomen was over distended more than period of gestation with cephalic presentation internal examination confirmed that patient was in active labor; vitals were stable; patient had no medical disorder and had Rh positive blood group, and laboratory data were normal including Serology, Cbc and urine routine and GCT and anomaly scan of fetus was also normal. USG done at 34 weeks period of gestation showed following picture.

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**USG:**(fig -1)SLIUF 33-34 weeks period of gestation with estimated weight of 2.5kg with placenta implanted in the anterior wall and has normal echo texture, no placenta previa. Large placental lake is seen in the inferior pole 78x63mm and AFI =20.9.

Test of fetal wellbeing was non reassuring i.e NST was non reactive, so patient and her relatives counselled for emergency LSCS.

#### **Intraoperatively**

Lus was not well formed, excess amount of clear liquor drained and Male fetus of 2.3 kg extracted as cephalic, APGAR score of 9/10 and 9/10 at 1 and 5 minutes respectively; Macroscopically placenta weight was 1 kg with inferior pole of placenta having mass of 7x8cm on fetal surface near the insertion of umbilical cord with vessels running through it as shown in figure.

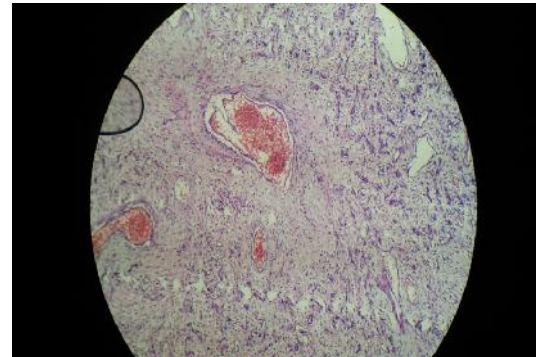


**FIG-2** inferior pole of placenta having mass of 7x8cm on fetal surface near the insertion of umbilical cord with vessels

Placenta was sent for histopath examination and report confirmed the diagnosis of chorioangioma i.e. showed cyst wall lined by fibrous tissue and underlying chorionic villi lined by inner cytotrophoblast and outer syncytiotrophoblast. Numerous syncytial knots and congested and dilated vein are seen, complex network of proliferating capillaries distending the stroma of the placenta. Scattered mitosis are seen dispersed degenerative changes like myxoid areas are seen. periphery of the lesion shows villi with telangiectatic vessels. Centre of the

tumour shows numerous thick walled vessels .i.e **suggestive of chorioangioma of placenta with cystic changes shown in (fig -3) :**

#### **Histopathological examination**



**Fig 3**

## **DISCUSSION**

Tumor is first described by CLARKE in 1978. (S. Asokan *et al*, 1978)

**Epidemiology:** it is estimated as 1% of all pregnancies (Amer HZ *et al* 2010)

**Etiology:** Not known

**High Risk Factors:** Multiple pregnancies, native of high altitudes and female fetus, increased maternal age, diabetes and hypertension. (S Acharya *et al*, 2004)

#### **Presentation**

Most lesion tend to be small, most cases are asymptomatic and merely incidental finding but occasionally when they are larger or multiple they can lead to pregnancy complications and poor perinatal outcomes (Wallenburg HC *et al*, 1971) including fetal anaemia, hydrops fetalis, growth restriction, polyhydramnios (most common complication) and preterm delivery fetal heart failure, thrombocytopenia, IUD (A.A Marchetti, 1939; Sreelakshmi *et al*,2012)

Large tumors present degenerative phenomenon like necrosis, calcification, hyalinisation or myxomatous degenerations.

**Location:** closed to cord insertion on fetal side

**Subtypes:** described by Marchetti (A. A. Marchetti *et al*, 1939)

1. Angiomatoid – most common
2. cellular
3. degenerative

#### **Diagnosis**

1. **USG with Doppler:** Main stay of diagnosis ,feeding vessel usually has same pulsatile flow as that of



umbilical artery but may have arterio venous shunt causing low resistance flow (Sepulveda G *et al*, 2000)

2. **MRI**: when tumor looks like myoma in USG MRI can be used, T2 image of MRI will be similar to haemangioma and thus diagnosis is done. (T Mochizuki *et al*, 1996)
3. **MARKER** : Raised MSAFP(Harris RD *et al*.1996) HCG (King PA *et al*, 1991)

### Management

1. Expectant management
2. Majority of tumors are small and asymptomatic usg to be repeated every 6-8week, if they are large than usg to be repeated every 1-2week some tumors may even regress spontaneously during pregnancy.
3. To prevent development of hydrops fetalis intervention included fetoscopic laser, devascularisation of tumor by suture ligation of the arterial supply and alcohol ablation of the feeding vessel. (Wanapirak C *et al*,2002; Quintero RA *et al*,1996)
4. Fetal transfusion in case of fetal anemia (Zalel Y *et al*,2002)
5. If polyhydramnios present than amnio drainage can be done or indomethacin can be given.
6. Before 34 weeks steroid can be given.

### Prognosis

Size of tumor, presence of complications like hydrops fetalis and appearance of calcification with in tumour. (Froehlich LA *et al*, 1971)

### Differential Diagnosis (LA Braceo *et al*, 1993)

1. Subchronic haematoma
2. Submucous fibroid
3. Placental teratoma

Use of Doppler to differentiate chorioangoma from placental teratoma , blood clot and leiomyoma was first demonstrated by Bromley and Benacerraf.(B.Bromley *et al*,1994)

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