

Large Placental Chorangiomas: Rare Case Report

Nanda J Patil^{*1}, Anita Gupta²

¹Associate Professor, ²Senior Resident(Pathology), Krishna Institute of Medical Sciences University, Karad, Maharashtra-415110, India

*Corresponding Author:

Name: Nanda J Patil

Email: nandajpatil@gmail.com

Abstract: In clinical practice, constipation is a common complaint and rarely secondary to endocrine or metabolic causes. We present here a case of an elderly male who presented with constipation was found to be having hypercalcemia as the cause of constipation.

Keywords: Large chorangioma, Perinatal morbidity

INTRODUCTION

Chorangioma is a benign tumour of placenta formed as a malformation of the primitive angioblastic tissue of the placenta, incidence being 1% [1]. Most of these tumours are small and diagnosed incidentally. Large chorangiomas (> 5 cm) are rare and occur among 0.2-4/10,000 birth [2]. Large chorangioma cause serious fetal and maternal complications during pregnancy [2-4]. We report three cases of large chorangiomas because of its rarity and adverse perinatal outcome.

Case Report

We received 3 cases of large chorangiomas. The clinical presentations and outcome are presented in Table 1.

Pathological examination

All chorangiomas were encapsulated, firm well-circumscribed, tumor masses seen on the fetal surface of placenta ranging in size 6-10cm. Two of which were purple red in colour while the third was palewhite. Microscopy revealed tumors composed of multiple proliferating vascular channels from capillary to cavernous size lined by plump endothelial cells separated by mesenchymal stroma. One of the tumors showed myxoid change. These tumors were lined by proliferated trophoblast.

Table 1: The clinical presentations and outcome of chorangiomas

Case No	Maternal Age	Parity	Gestational Age	Clinical Presentation	Use	Fetal Outcome
1	23 yrs	P-1	34 weeks	Premature rupture of Membranes (PROM)	Polyhydramnios Intrauterine Growth Retardation (IUGR)	Preterm, (IUGR)
2	20 yrs	P-1	36 weeks	Preterm labour	Intrauterine Death (IUD)	Preterm, IUD
3	24 yrs	P-2	36 weeks	Preterm labour	Cystic renal dysplasia	Preterm Labour

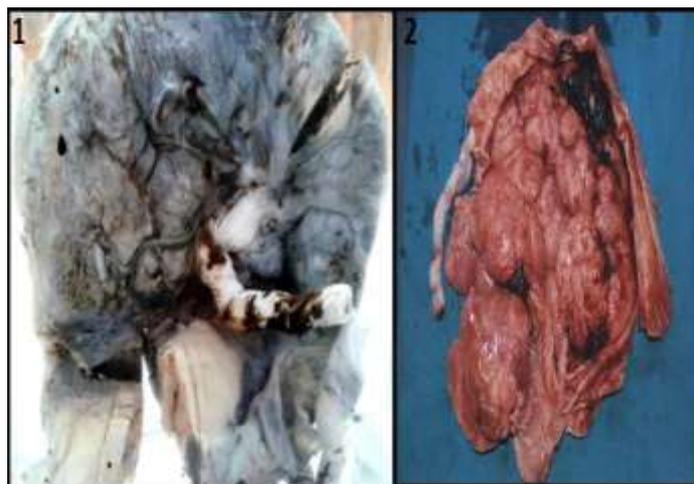


Fig. 1: Gross: Case 1: 6×5×5 cm pale white tumor & Case 2: 8×7×6 cm purple red tumor on fetal surface

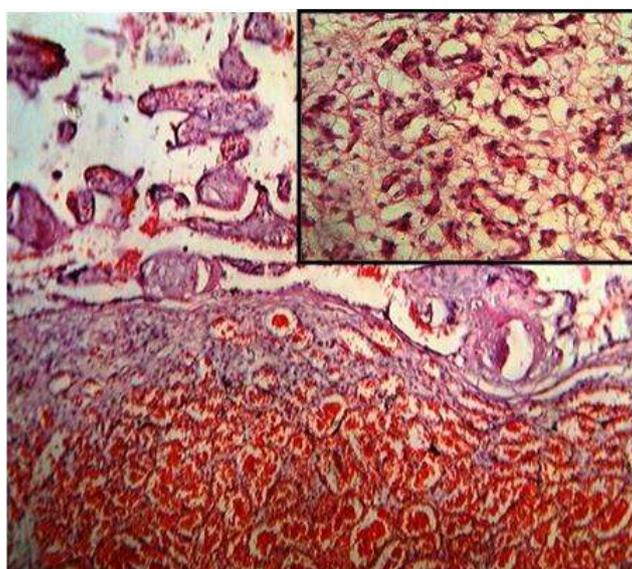


Fig. 2: Microscopic view-tumor with placenta (100xH&E) & Inset- small vascular channels. Plump endothelial lining (100x H&E)

DISCUSSION

Chorangioma is a benign neoplasm of the placenta. Most of them are sporadic [5] & seen in primiparas seen in two of our cases. The risk factors are twin pregnancy, maternal diabetes, hypertension and increased maternal age (>30yrs) [3, 6]. Recurrence of these tumors is mostly unknown.

Small chorangiomas have no clinical significance and while large tumors are associated with maternal and fetal complications. The most common complications are preterm labour due to polyhydramnios, premature rupture of membranes due to dystocia, intrauterine growth retardation due to chronic placental insufficiency and intrauterine death [7] as seen in our cases.

Large chorangiomas have the potential to become arteriovenous shunts which compromise fetal

circulation by increasing the venous return to the fetal heart causing cardiac failure, hydrops and stillbirth [8]. Complications like thrombocytopenia, anemia and disseminated intravascular coagulation are due to sequestration of blood elements in these tortuous vascular channels [2].

Gross examination reveals single or multiple tumor masses of variable size, arising from the fetal or maternal surface or seen within the placenta. The tumor masses are firm, encapsulated and show purple red to tan off white colour [6].

Microscopy shows multiple vascular channels of variable size lined by plump endothelial cells and separated by mesenchymal stroma with secondary changes [6]. Three histological patterns have been described by Marchetti as angiomatous, cellular and degenerating; angiomatous being most common [9]. Immunostains are positive for factor 8 and CD 34 with

faint positivity for estrogen and progesterone receptor [4].

Differential diagnosis includes chorangiomas and chorangiomatosis [3], the definitive diagnosis relies on radiological, gross and microscopic features. For confirmation IHC may be useful.

Ultrasound shows large tumor with different echogenicity from rest of the placenta. Colour Doppler and MRI are more useful and reveal pulsatile flow in the vascular channels and iso or hyperintense lesion [2].

Ultrasounds to exclude any congenital anomaly and fetal karyotyping are necessary to assess tumor growth, fetal growth and development of hydrops. Termination of pregnancy should be done after fetal viability is achieved. Intrauterine transfusion may be considered in case of fetal anemia (not nearing viability). Ablation of blood supply of chorangioma can be achieved by operative fetoscopy [2]. All the three chorangiomas in our cases were large, two of which were seen in primiparas as mentioned in the literature. The fetal outcome was preterm labour in all the cases with IUGR, IUD and cystic renal dysplasia in each case.

CONCLUSION

- Large chorangiomas are rare & result in adverse maternal and fetal outcome.
- Every effort should be made to diagnose these lesions in antenatal period with the help of radiological investigations to prevent further complications.

REFERENCES

1. Amer HZ, Heller DS; Chorangioma and related vascular lesions of placenta-review. *Fetal Pediatr Pathol.*, 2010;29(4):199-206.
2. Bagga R, Suri V, Srinivasan R, Chadha S, Chopra S, Gupta N; Huge placental myxoid chorangioma presenting with severe antepartum hemorrhage. *J Nep Med Assoc.*, 2006; 45: 366-369.
3. Lez C, Fures R, Hrgovic Z, Belina S, Fajdic J, Munstedt K; Chorangioma placentae. *Rare Tumors*, 2010; 2(4): e67.
4. Mesia AF, Mo P, Ylagan LR; Atypical cellular Chorangioma. *Archives of Pathology & Laboratory Medicine*, 1991; 123(6): 536-538.
5. Yuranga Weerakkody et al.; Placental chorangioma. <http://radiopaedia.org/articles/placental-chorangioma>. 1999; 123(6): 536-538.
6. Robboy SJ, Mutter GL, Prat J, Bentley RC, Russell P, Anderson MC; Nidation and placenta. In Robboy's Pathology of the

Female Reproductive tract. 2nd edition, Churchill Livingstone, 2008; 856-857.

7. Patil M; Placental Chorangioma: a rare cause of pre eclampsia. *Global Research Analysis*, 2013; 2(5): 197-198.
8. Sabhikhi AK, Chaudhury MC, Singh D, Raja LN; Chorangioma of the placenta with hydrops fetalis. 1996; 33: 520-521.
9. Marchetti AA; A consideration of certain types of benign tumors of the placenta. *Surg Gynecol Obstet.*, 1939; 68: 733-743.