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Chorangioma-A Rare Case Report

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Abstract: A chorangioma is a non-neoplastic, hamartoma-like growth in the placenta consisting of blood vessels. Placentalchorioangioma is the most common type of placental tumor. It is usually symptomless and may be associated with serious maternal and fetal complication when it reaches a large size. We presented a case of fibrous type of placental hemangioma diagnosed during second trimester of pregnancy on routine ultrasound. Macroscopic and microscopic examination of the placenta confirmed the diagnosis. Despite the rarity of placental tumors, they should be considered as differential diagnosis. The presented case of chorangioma is interesting for two reasons. Its presence and size were not related to a pregnancy disorders or developmental anomalies of the fetus. This tumor can be used as a model for research on the genesis of vascular diseases.
Keywords: Chorangioma, Pregnancy disorders.

INTRODUCTION

Chorangioma of the placenta is a rare tumor with a frequency of about 1%, which usually presents as a solitary nodule or, less frequently, as multiple nodules. It is found on the fetal surface of the placenta or in placental parenchyma [1]. The primary neoplastic diseases of the placenta include a wide range of conditions that can be classified into two main groups: trophoblastic and nontrophoblastic diseases. Nontrophoblastic diseases occur more frequently, always with benign courses. Chorioangioma and teratoma belong to this group of disorders. The pathogenesis of these neoplasms is controversial; however, they can originate from any part of the placenta excluding the trophoblastic tissues [2].

Clinical history

We have observed chorangioma as an incidental finding during the routine ultrasound examination done during second trimester of pregnancy of the 25 year old G2P2L2 whose pregnancy was clinically normal. She was admitted to the hospital for labour at 30 weeks of gestation. Pregnancy, labor and delivery were uncomplicated. She delivered a preterm child; baby kept in NICU for few days, now doing fine. Placenta normal in size and weight as per the gestational age, with centrally attached umbilical cord and radially distributed alantoic blood vessels. Manual removal of placenta done for retained placenta. Solitary, ovoid mass was observed on the fetal side of the placenta, measuring 5 cm in greatest diameter with soft and dark, red-tan cut surface [Fig-1&2].Microscopically, the chorionic villi were regular in shape, with fibrovascular stroma and presence of syncytiocapillary membranes in terminal villi, which were lined with a single layer of trophoblast [Fig-3&4] On gross examination, as well as microscopically, umbilical cord and amniotic membranes were unremarkable. Thechorangioma contained all developmental phases of angioblastema-endotheliomatous, capillary, cavernous – in fibrous stroma.Fibrous stromal component predominant in our case

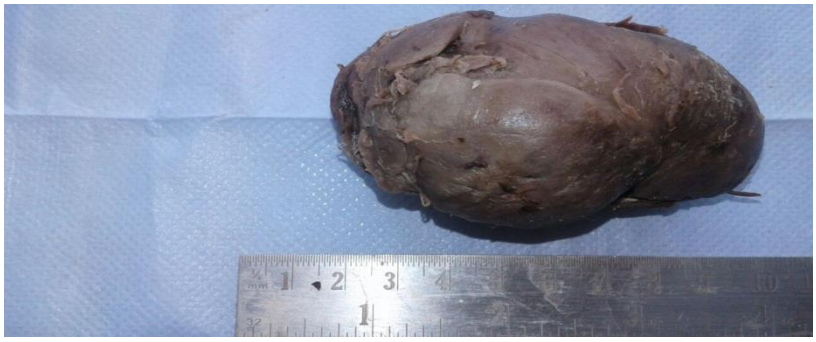

Fig-1: Gross image of Chorangioma

Fig-2: Gross image, cut section

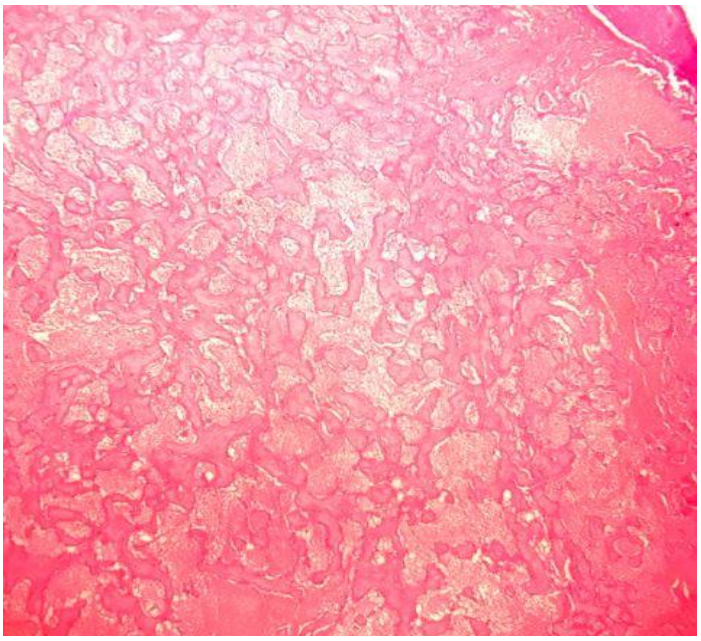

Fig-3: MicroscopyChorangioma- Scanner view[4x]

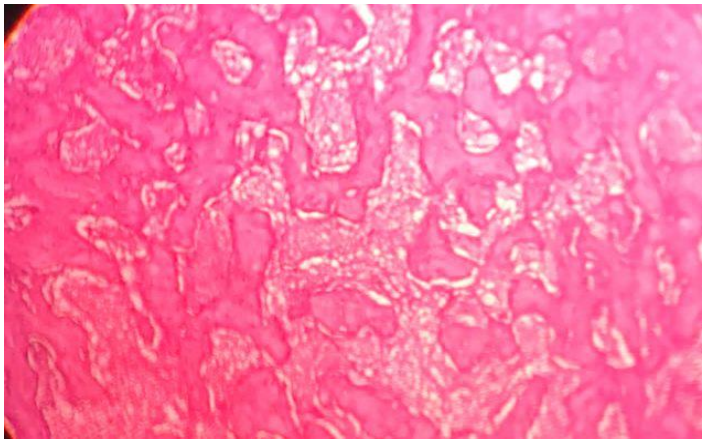

Fig-4: Microscopy Chorangioma-low power view [10x]

DISCUSSION

Chorioangioma is the most common histological type of placental tumors.It can be detected in pathomorphological examination in 0.6%–1% of placentas. An increased incidence rate of choroangioma is associated with maternal age, hypertension, diabetes, female sex of the newborn, premature labors, first delivery and multiple pregnancies [3]. Small chorioangiomas are usually not diagnosed, usually without fetal or maternal complications. They can be discovered sometimes postnatally.Larger masses, especially those more than 5 cm, are more easily diagnosed by ultrasound scan, and they may cause complications.

Complications

Maternal complications include polyhydramnios which can cause: premature uterine contractions; cervical incompetence; premature labor [in our case] placental abruption due to sudden fall of the intrauterine pressure after membrane rupture; malpresentation; increased risk of cesarean section performance; and postpartum hemorrhage.

Fetal complications include fetal heart failure, thrombocytopenia, nonimmunologicfetal hydrops, hemolyticanemia, intrauterine growth restriction, brain infarction, umbilical vein thrombosis, fetal cerebral embolism, and intrauterine fetal and neonatal death [4-6].

DIAGNOSIS

Imaging

Doppler ultrasound examination is the gold standard in primary diagnosis of hemangioma.While the computed tomography technique has a limited role in the diagnosis of the placental angioma, mainly because of the high radiation risk and poor tissue differentiation. Use of computed tomography to detect metastases is also not indicated since hemangioma are always benign. Largechorangiomas are diagnosed by ultrasound or MRI, and confirmed by histologic examination of the placenta.

Histopathology

Histologically, chorangioma consist of abundant vascular channels and may be cellular.Chorioangiomas can be classified into angiomatous (capillary), cellular, and degenerative types. The capillary type is the most common histological subtype. Immunohistochemicaly, the tumor cells show focal staining for cytokeratin 18, a finding that suggests origin from blood vessels of the chorionic plate and anchoring villi [7].The clinical significance of placental chorangiomas is related to the size of the tumor. An antenatal diagnosis of placental chorangioma, especially those large enough to be of clinical significance is possible by ultrasonography [8].

Significance

Mostchorangiomas are not clinically significant, i.e. they do not have an adverse effect on placental function. The significance of a chorangioma is determined by its size and whether it is found together with other chorangiomas. Chorangiomas are significant if multiple or "large", i.e. greater than 4 cmor 5 cm.

Treatment

Small chorangiomas are not treated. Large chorangioma can be treated several ways, including chemical ablation and laser coagulation

Grossly, chorangioma is well circumscribed. Chorangioma is a nontrophoblastic tumour characterized by abnormal vascular development within the placental parenchyma, which is most frequently observed in the third, and less frequently in the second trimester of pregnancy as a solitary nodule or, less frequently, as multiple nodules. It is usually an incidental microscopical finding.

Even though it has no fibrous capsule, it is sharply demarcated from the surrounding placental parenchyma by a single or, less frequently, double layer of chorionic epithelium.

It is most frequently found on the fetal surface of the placenta, often in the vicinity of umbilical cord

insertion, with larger tumors being usually attached to the chorion. It can protrude on the fetal surface of placenta or can be small intraplacental lesion. Placental chorangioma can often grossly be confused with infarct or intervillous thrombus.

Microscopic

Being classified as a hemangioma, its histological appearance is variable. It is microscopically composed of numerous proliferative blood vessels in various stages of differentiation, from capillary to cavernous. The amount of vascular and fibrous stromal component can vary. It could be divided into endotheliomatous, capillarious, cavernous and fibromatous form, from which the capillarious is the most common of all chorangiomas. Chorangiomata probably arise as malformations of the primitive angioblastic tissue of the early placenta.

Differential diagnosis of chorangioma includes chorangiosis and chorangiomatosis, that presents a diffuse or more often a focal proliferation of villous angioblastema with villi that are not present in chorangioma.

REFERENCES

1. Wallenburg HC. Thirteen New Cases and a Review of the Literature from 1939 to 1970 with Special Reference to the Clinical Complications. Obstetrical & gynecological survey. 1971 Jun 1; 26(6):411-25.
2. Amer HZ, Heller DS. Chorangioma and related vascular lesions of the placenta—a review. Fetal and pediatric pathology. 2010 Jul 1; 29(4):199-206.
3. Guschmann M, Henrich W, Entezami M, Dudenhausen JW. Chorioangioma–new insights into a well-known problem I. Results of a clinical and morphological study of 136 cases. Journal of perinatal medicine. 2003 Mar 31; 31(2):163-9.
4. Batukan C, Holzgreve W, Danzer E, Bruder E, Hösli I, Tercanli S. Large placental chorioangioma as a cause of sudden intrauterine fetal death. Fetal diagnosis and therapy. 2001; 16(6):394-7.
5. Ozer EA, Duman N, Kumral A, Yilmaz S, Oren H, Kir M, Ozer E, Ozkan H. Chorioangiomatosis presenting with severe anemia and heart failure in a newborn. Fetal diagnosis and therapy. 2008; 23(1):5-6.
6. D'Ercole C, Cravello L, Boubli L, Labif C, Millet V, Potier A, Blanc B. Large chorioangioma associated with hydrops fetalis: prenatal diagnosis and management. Fetal diagnosis and therapy. 1996;11(5):357-60.
7. Lifschitz-Mercer B, Fogel M, Kushnir I, Czernobilsky B. Chorangioma. A cytoskeletal profile. International journal of gynecological pathology. 1989 Dec 1; 8(4):349-56.
8. Laing ST, Woo JS, Wong VC. Chorioangioma of the placenta: an ultrasonic study. BrJ Obstet Gynaecol. 1982; 89:480-2.