

IMMATURE TERATOMA IN THE ORAL CAVITY OF THE FOETUS- A RARE PRESENTATION

Chetana N¹, Kavya G. Venkatappa², Fouzia Kauser³

¹Consultant, Department of Obstetrics and Gynaecology, Sarji Hospital, Shivamogga, Karnataka.

²Consultant, Department of Obstetrics and Gynaecology, Sarji Hospital, Shivamogga, Karnataka.

³Lab Director, Consultant Pathologist, Sarji Hospital, Shivamogga, Karnataka.

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PRESENTATION OF CASE

A 26 yrs. old G2P1LI with previous child of 2 yrs. with 20 weeks of gestation came with ultrasound reports showing a large polypoidal complex cystic mass of size 8.0*9.0 cms. arising from the left face at the region of the maxilla and upper lip covering the neck of the foetus. Mass showed focal calcifications and was predominantly exophytic floating in the amniotic fluid. There was no history of consanguinity. Nuchal translucency and double marker screening were normal.

CLINICAL DIAGNOSIS

Teratomas of Head and Neck

Teratomas of head and neck are rarely encountered and account for less than 5% of reported cases.¹⁻⁵ The most common sites of occurrence are the nasopharynx and cervical region. Teratomas of the palate are rare. We describe histopathologic features of an oral immature teratoma arising in the palate of a foetus.

Teratomas are congenital germ cell tumours composed of diverse tissues of ectodermal, mesodermal, and endodermal origin with variable levels of maturity. Immature teratoma is an uncommon prenatal finding, which was rarely reported in the oral region. We here in report a rare case of a male foetus with a mass arising in the oral cavity. Ultrasonic studies diagnosed it as lymphangioma, and pathological studies of the resected mass provided supportive evidence for the case of an oral immature teratoma.

DIFFERENTIAL DIAGNOSIS

1. Cystic Hygroma
2. Lymphangioma
3. Foetus-In-Feto

PATHOLOGICAL DISCUSSION

Macroscopically the mass is a brownish lump measuring 11*8*4cms with nodular areas. Cut surface shows cartilaginous tissue with hard foci.

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Corresponding Author:

Dr. Kavya G. Venkatappa,

C/o. B. Venkatappa,

Kanasu Nilaya, 428/B, 1st Floor,

Behind FCI Godown, Alkola Main Road,

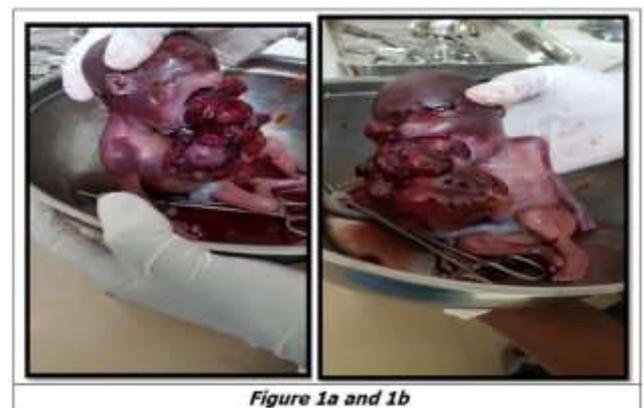
Alkola, Shimoga- 577204, Karnataka.

E-mail: dr.kavya.gv@gmail.com

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Microscopically on low power field multiple sections showed non-organoid mixture of tissue elements derived from ectodermal, mesoderm and endoderm such as nervous tissue from cerebral cortex, retina, tooth germ, hair follicles and hair shafts, connective tissue, smooth muscle cartilage and bone, squamous epithelium, glands, melanocytes, respiratory epithelium etc., were found, features suggestive of immature teratoma. (Figure 2A, 2B and 2C).



The mass arising from the oral cavity measuring size 11*8*4cm with irregular and segmented appearance.

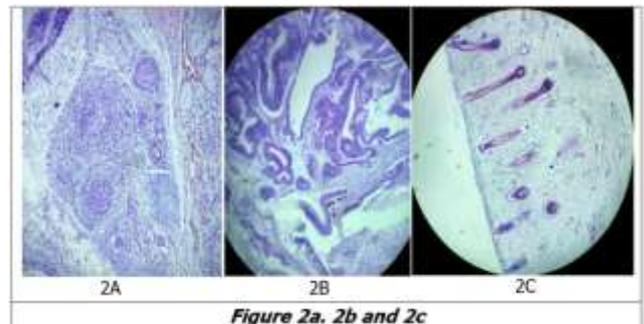


Figure 2A. On low power field, mature bone and immature cartilage are seen.

Figure 2B. On low power field neural tissue seen.

Figure 2C. On low power field glomeruli tissue seen.

DISCUSSION OF MANAGEMENT

Based on these findings, counselling of the parents done, informed consent taken, and induction of labour performed. Patient delivered a dead male foetus of weight 486 gms. with an irregular mass of size 10*8*7 cms. with nodularity arising from the palate of the oral cavity. (Figure 1A and 1B) Specimen sent for histopathological examination.

Teratomas of the head and neck are rare congenital lesions. Teratomas are neoplasms composed of tissue

elements foreign to the anatomic site of origin.⁶ The term teratoma is derived from the Greek word "teraton", which means 'monster,' and initially was used by Virchow in his first edition of his books on tumours, published in 1863.⁶ They are true neoplasms originating from pluripotent cells and are composed of tissues from all three germinal layers usually benign in nature. : Ectoderm, mesoderm, and endoderm.⁷

They occur with an incidence of 1: 4000 live births.⁸ Sacrococcygeal teratomas are the most common type (45-65%) followed by teratomas of the gonads (10-35%), anterior mediastinum (10-12%), retroperitoneum (3-5%), cervical (3-6%), presacral (3-5%), central nervous system (2-4%) and other sites (<1%).⁸ Nasopharyngeal teratomas are extremely rare lesions and comprise less than 2% of all teratomas.⁸

Mature teratomas are composed of tissues derived from the three germ layers. Immature teratomas are different to mature teratoma, which contain elements of all three germ layers with a prominent neuroectodermal component. Occasionally, the tumour may be composed of a small number of tissues. The occurrence of a congenital oral teratoma (epignathus) is 2-9% of all teratomas.^{8,9}

The aetiology of epignathus remains unclear. The most common theory supposes that an epignathus derives from pluripotential cells in Rathke's pouch that grow in a disorganized manner.¹⁰ Reviewing the literature, Cleft palate is most frequently involved. It is thought to be caused by the migration of embryonic tissue into the nasopharynx at a very early stage of fetal life, before the normal union of the bilateral palatal shelves.¹¹

FINAL DIAGNOSIS

Immature Teratoma In the Oral Cavity of The Foetus

In immature teratomas, tissues might arrange from embryonic to mature, which are scattered haphazardly throughout the tumour, which differ from the orderly organoid arrangement seen in a mature teratoma. Sometimes, the tumour is composed mainly of mature tissues, differentiation from mature teratoma may be difficult, careful examination and thorough sampling of the tumour is strongly recommended. Immature teratoma might be combined with other neoplastic germ cell elements, especially arising in ovary, testis and pineal body. The grade of immature teratoma has been tailored to estimate the amount of immature tissue in the teratoma. Assessments of grade were based on the overall extent of immature neuroepithelium. The primary differential diagnosis of

teratoma is foetus in foetus. Foetus in foetus can be distinguished from teratoma by the presence of a vertebra. What's more, teratomas are most commonly seen in the sacrococcygeal or head and neck region, whereas foetus in foetus cases is typically located in the retroperitoneal position. Moreover, enclosure of the malformed foetus within the amniotic membrane helps distinguish it from teratoma.¹²

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