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Letter to Editor

Pathology Section

Asymptomatic Cervical Mature Teratoma in a Child: An Unusual Presentation

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Sir,

Teratomas originate from multipotent primitive germ cells, leading to different tissues that are foreign to the anatomical site of origin. They are embryonic tumours and appear in about 1:20,000-40,000 live births. Teratomas may develop in any part of the body; however, the sacrococcygeal region is the most common location [1]. Only 1.5% to 5.5% of all paediatric teratomas occur at the cervical region. Although cervical teratomas are generally benign, they can be fatal due to respiratory distress, if not excised [2]. We aimed to present the case of a 2-year-old female with a cervical teratoma without airway obstruction.

A 2-year-old female was admitted to our hospital with a slowly enlarging cervical tumour first noticed during the neonatal period. There were no symptoms of distress in this patient during the fetal period. Surgical treatment was planned at the second month; however, the patient was not operated on due to an acute pulmonary infection. At that point the patient was treated for the pulmonary infection and discharged from the hospital. Clinical follow-up was not done and, thus far, there were no symptoms with regard to the cervical mass. Currently, upon physical examination, the tumour was determined to be 5x4 cm in diameter, and palpated in the left anterior region of the neck. The mass was immobile and had an elastic consistency. There was no indication of respiratory distress. The results of the hematological tests and thyroid function tests were within normal limits. The preoperative appraisal of the patient consisted of X-rays, ultrasonography and magnetic resonance imaging to evaluate the extent of the tumour. Cervical x-rays revealed minimal tracheal deviation, and calcification was not observed in the tumour. US showed a multiloculated cystic mass with internal septations. The MRI showed the presence of a 31x53x46 mm mass with cystic components, located in the left lobe of the thyroid, and extending from the submandibular region to the mediastinal entry. The cystic fluids were shown to be of low intensity on the TI-weighted MRI, and of high intensity on the T2-weighted MRI [Table/Fig-1]. Complete surgical excision of the tumour was carried out, and upon macroscopic examination, the tumour was 5x3x2.5cm in diameter and composed of many cystic lumina containing gelatinous fluid and solid areas. Upon histopathological examination, all of the components of the tumour were mature, and glial tissue, cartilage, striated muscle, enteric type mucosa and bronchial epithelium were observed [Table/Fig-2]. The tumour was diagnosed as a mature teratoma.

Cervical teratomas are primitive germ cell neoplasms with a poor clinical outcome. The pathogenesis is not well established; however, it has been reported that cervical teratomas arise from the embryonic thyroid anlage. Teratomas occurring in the cervical region are rare entities, which were first described by Hess in 1854 [3]. A study of teratomas by Gonzalez-Crussi reported that only 3.4% of the cases were in the cervical region [4]. They are usually solitary; although, multifocality has also been reported [1]. In our case, the tumour presented as a solitary mass and multifocality was not detected.

Teratomas may enlarge and compromise the airway, and although histopathologically benign, they may be fatal at the time of birth due to airway obstruction. These require immediate surgical treatment. Large tumours may cause cervical hyperextension, esophageal obstruction and polyhydramnios. Polyhydramnios is reported in about 19% of the cases. The degree of airway obstruction and polyhydramnios relate to the size of the tumour [1]. In our case, compression related findings, such as respiratory distress, esophageal obstruction and polyhydramnios, were not present, probably due to the small size of the tumour. They may contain cartilage, bone, fatty tissue, skin, hair, glial tissue and components of the respiratory or digestive tract [1,5]. In our case, all of the components of the tumour were mature, and glial tissue, bone, cartilage, striated muscle and bronchial epithelium were observed. In conclusion, congenital cervical teratomas are extremely rare neoplasm. Although they are usually benign in origin, these tumours are associated with a high mortality rate due to respiratory distress and require immediate surgical excision. Our case is rare in the literature due to the fact that it is clinically asymptomatic.

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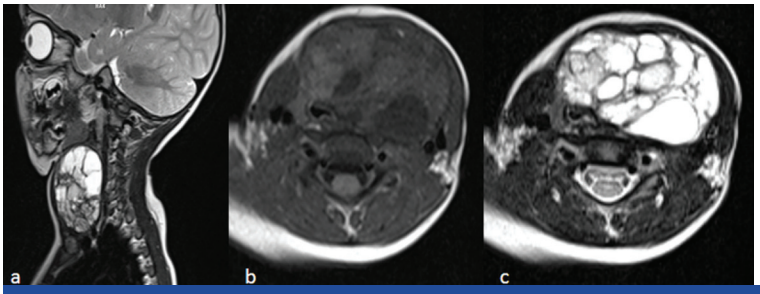

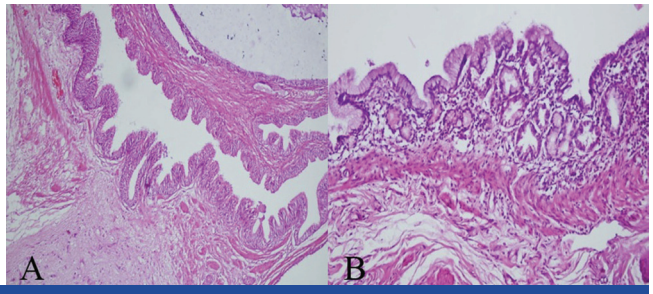

[Table/Fig-1]: (a,c) MRI of the cervical region demonstrating a mass with cystic and solid compartments, which is high intensity on the T2-weighted MRI, and (b) low intensity on the TI-weighted MRI **[Table/Fig-2]:** (A)Microscopic photograph of the tumour showing glial tissue, respiratory (B) and enteric type mucosa (H&E x100 and x200,respectively)

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