

FIBROMATOSIS COLLI OF INFANCY: A CASE REPORT

Sheeza Imtiaz

Department of Radiology, Patel Hospital, Karachi, Pakistan

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ABSTRACT

Sternocleidomastoid tumor of infancy (SCMI), also known as fibromatosis colli or muscular fibromatosis of infants, is a benign and very rare entity. We are presenting a case of 1 month old neonate who was referred to the Radiology department for USG of a neck swelling on lateral aspect of right side of the neck that had been noticed by the parents 1 week ago. USG showed a thickened sternocleidomastoid muscle on the right side; it had a fusiform appearance and heterogeneous echotexture. Diagnosis was confirmed after fine needle aspiration.

Key Words: Fibromatosis colli; ultrasound; torticollis

Introduction

Sternocleidomastoid tumor of infancy (SCMI), also known as fibromatosis colli or muscular fibromatosis of infants, is a benign self limiting fibroblastic lesion involving body of sternomastoid muscle.^{1,2} This lesion is very rare, around 0.4% live birth.¹⁻³ However, SCMI is the most common cause of congenital muscular torticollis accounting for 10-20% of the cases.⁴ It was characterized by Chandler and Altenberg as the appearance of "a hard, immobile, fusiform swelling in the sternocleidomastoid muscle which usually is detected at 2 weeks after birth and then increases in size for two to four weeks until it reaches the size of a very large almond".^{5,6}

Case Report

A 1 month old neonate was referred to the Radiology department for USG of a neck swelling on lateral aspect of right side of the neck that had been noticed by the parents 1 week ago. The swelling was firm to hard in consistency and was not warm to touch. The patient was afebrile. There was restriction of neck movements on the affected side. The obstetric history

of mother revealed that there was prolonged labor and the baby was delivered by forceps extraction. Post partum period was uneventful. USG showed a thickened sternocleidomastoid muscle on the right side; it had a fusiform appearance and heterogeneous echotexture. The fibrillar structure of the muscle fibers was however maintained (Fig. 1). In comparison, the left sternocleidomastoid muscle appeared

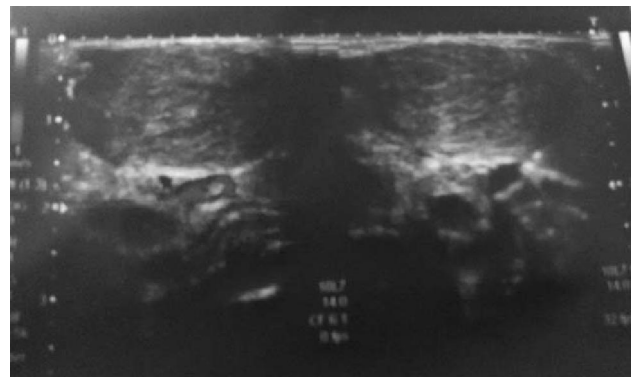


Figure 1: Ultrasound examination of right side of the neck shows fusiform enlargement of sternocleidomastoid with preserved fibrillar echotexture of the muscle.

normal (Fig. 2). No cervical lymphadenopathy was noticed. Based on these USG features and the clinical

Correspondence : Dr. Sheeza Imtiaz
Department of Radiology,
Patel Hospital,
Karachi, Pakistan
Email: dr.sheeza.imtiaz@gmail.com

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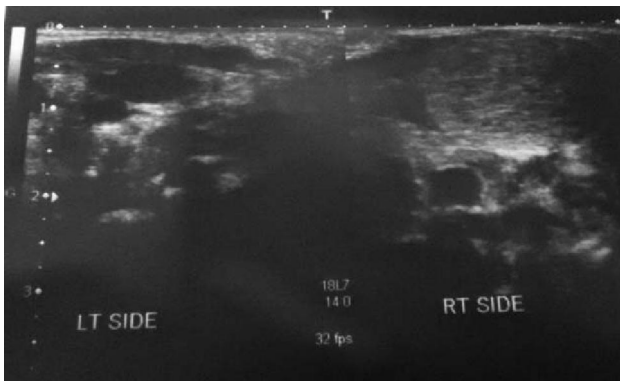


Figure 2: Comparison of sternocleidomastoid muscle on ultrasound showing enlargement on right side with normal appearing muscle on left side.

findings, a diagnosis of fibromatosis colli or pseudotumor of the sternocleidomastoid muscle was considered. Diagnosis was confirmed after fine needle aspiration.

Discussion

Sternomastoid tumor of infancy is a rare and self-limiting entity and has characteristic clinical presentation such as age, sex, site of lesion and history of birth trauma. The mean ages of presentation of fibromatosis colli are 24 days. This case was diagnosed when the baby was one month old. They are usually common unilaterally but rarely found bilaterally. Fibromatosis colli is more common on the right (73% - 75%) as in this case than the left side of the neck (22%).^{5,6} History of complicated delivery and birth injury are associated in more than 50% cases.⁷ In this case there was history of prolonged labour and forceps delivery.

The lesion is often diagnosed clinically by its classical presentation and physical examination. The clinical differential diagnosis includes various congenital lesions such as branchial cyst, thyroglossal cyst and inflammatory condition like tuberculous lymphadenitis, benign neoplastic condition like hemangioma, cystic hygroma and malignant neoplasm like neuroblastoma, rhabdomyosarcoma and lymphoma.³

Most authors report, in agreement with our findings, that US is the preferred diagnostic tool because of its easy availability, low cost, and lack of ionizing radiation.⁸ The SCM muscle is diffusely enlarged in a fusiform manner, with resultant shortening and

therefore head turned away from the affected side. Echogenicity may vary. Colour Doppler interrogation may reveal a high resistance waveform. The enlarged area often moves synchronously with the rest of the SCM muscle on real-time Sonography.⁹ Though US is the imaging modality of choice, cross-sectional imaging with CT scan or MRI may occasionally be used to exclude other conditions when the clinical findings are equivocal or atypical and may be required to further characterize the disease and to find out the extent of involvement. CT scans typically shows a diffusely enlarged SCM muscle which is isoattenuating to normal neighbouring musculature. Adjacent fat planes are well preserved. At times calcification may be present.¹⁰ MRI shows a well-defined mass with increased signal on T1 weighted and T2 sequences surrounded by tissue with normal muscle signal.

Treatment is mainly conservative consisting of observation and stretching exercises. Surgical intervention is required in <10% of cases and consists of tenotomy of the sternocleidomastoid muscle. More recently, use of Botulinum toxin type A in refractory cases has further decreased the need for surgical interventions.¹¹

Conclusion

Fibromatosis colli is a relatively rare cause of neck mass. High frequency Ultrasonography is diagnostic in confidently diagnosing this entity, thereby decreasing the parent's anxiety and unnecessary investigations. MRI is advocated in doubtful cases.

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