ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 12, Issue, 04, pp.10957-10958, April, 2020

DOI: https://doi.org/10.24941/ijcr.38087.04.2020

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

FIBROMATOSIS COLLI OF INFANCY: STERNOCLEIDOMASTOID TUMOUR – A CASE REPORT

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ARTICLE INFO

Article History:
Received 24th January, 2020
Received in revised form
15th February, 2020
Accepted 08th March, 2020
Published online 30th April, 2020

Key Words:
Ischaemia, Torticollis,
Infancy, Sternocleidomastoid..

ABSTRACT

Fibromatosis colli of infancy of the sternocleidomastoid muscle is a benign neck mass in neonates and infants.It is a rare entity which needs early diagnosis and conservative management so that it can avoid unnecessary investigations and reduce parental anxiety.

Citation: ***Saranya Thangavel, Rashmi Hansdah, Kalaiarasi Raja and Sunil Kumar Saxena.*** **2020.** "Fibromatosis colli of infancy: sternocleidomastoid tumour – a case report", *International Journal of Current Research*, 12, (4), 10957-10958.

INTRODUCTION

Fibromatosis colli of infancy is a benign condition during infancy in which there is diffuse, fusiform enlargement of sternocleidomastoid muscle. Exact cause is unknown but birth trauma like instrumental delivery is the most likely cause. Ultrasound Neck is the investigation of choice because it is non-invasive, cost effective and absence of ionising radiations.

CASE REPORT 1:

45days old male baby presented to our ENT opd with complaints of right sided neck swelling since 15 days of birth. The mother also noticed restricted neck movements on the same side. He was otherwise an full term normal vaginal delivery with breech presentation. There was no history of instrumental delivery or birth trauma or family history or fever, upper respiratory infection, difficulty in feeding or poor weight gain. On examination, there was swelling of size 1.5-2 cm over the right side upper one third of sternocleidomastoid that was firm, nontender, not warmth on touch and attached to the underlying muscle.

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Neck movements were in full range. Ultrasound neck showed right bulky, fusiform sternocleidomastoid with possibility of right sternocleidomastoid tumour.

CASE REPORT 2:

60days old male baby with complaints of left sided neck swelling since 20 days of birth. He was otherwise an full term normal vaginal delivery with cephalic presentation. There was no history of instrumental delivery or birth trauma. The patient is having features suggestive of laryngomalacia. On examination, a firm, non-tender swelling of size 0.5*0.5cm noted over left side upper one-third sternocleidomastoid with normal range of neck movements. Ultrasound neck showed left bulky, fusiform sternocleidomastoid with features suggestive of left sternocleidomastoid tumour.

DISCUSSION

Fibromatosis colli is benign fibroblastic condition due to fibroblastic proliferation within sternocleidomastoid muscle resulting in diffuse enlargement (Khalid, 2012). According to 2002 WHO classification, it is classified under soft tissue tumours (CDM, 2002). Ischemia of the muscle during difficult delivery may be attributed as a possible cause. It is more

common among boys with prevalence of 0.4% (Oliveira, 2018).

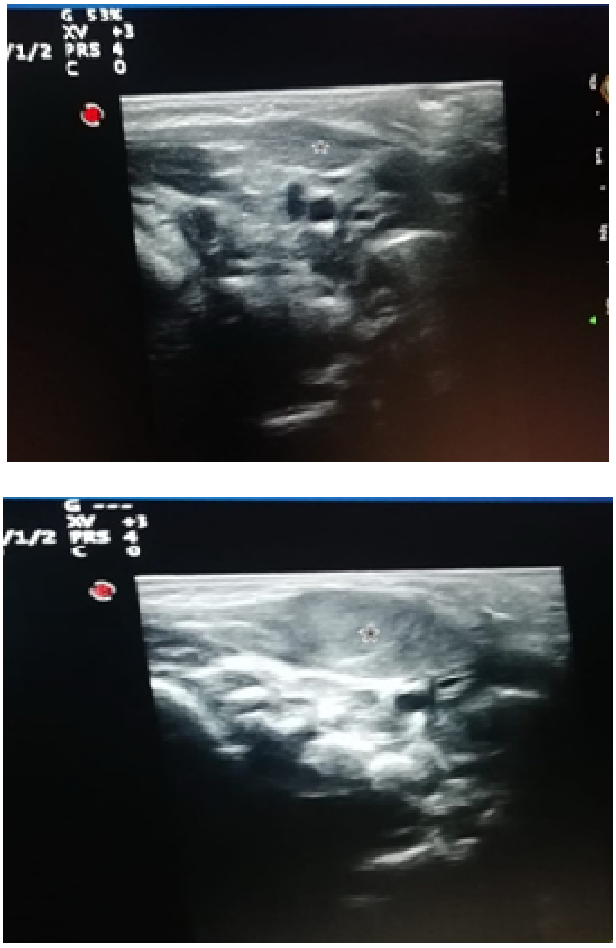

Figure 1. Ultrasound neck showing normal sternocleidomastoid muscle (*) and (b) bulky, fusiform sternocleidomastoid muscle(*)

It presents around 2-4weeks of birth as neck swelling,usually following vacuum or forceps delivery or difficult delivery (breech presentation).20% of cases can develop torticollis. Unlike other neck masses, it doesn't have vascular or bony involvement or cervical lymphadenopathy. Bilateral sternocleidomastoid tumours of infancy are a very rare presentation but it has been described in literature (Kumar, 2003).

Clinical features: Infants are normal at birth but they present with swelling over neck with restriction of movements around 14-28 days of birth. Sometimes it results in tilting of head towards the side of the lesion. It is also associated with facial and skull asymmetry. There is spontaneous gradual resolution by the age of 2 years.

Investigation: High frequency Ultrasound neck is the best non-invasive investigation in confirming diagnosis that will show homogenous or heterogenous fusiform enlargement of muscle with well-defined margins. It may be hypo or hyper echoic depending on the duration (Lin, 1997). Real time USG shows synchronous movement of the mass with the muscle (Khalid, 2012). Computed tomography reveals isoattenuated sternocleidomastoid enlargement with normal fascial planes (Crawford, 1988).

Magnetic resonance imaging shows increased signal intensity in T2 imaging and more hyper intense in gradient recalled T1W imaging suggestive of fibrous tissue within the mass. It helps in localising the mass and also to rule out other associated conditions like vascular compromise, airway obstruction or lymphadenopathy (Ablin, 1998). FNAC shows bland appearing fibroblasts with degenerated and atrophied smooth muscles with muscle giant cells in the background (Sharma, 2003).

Differential Diagnosis: Rhabdomyosarcoma, neuroblastoma, cervical lymphadenopathy or vascular encasement (Smiti, 2010).

Treatment: Treatment is mainly conservative including observation and physiotherapy. Physiotherapy involves stretching exercises and it should be started as early as possible for better outcome. Only 10% of cases require surgical intervention that includes tenotomy of the sternocleidomastoid muscle. Refractory cases requires Botulinum toxin A injection that reduces the need for surgical treatment (Joyce, 2005).

Conclusion

Early diagnosis with imaging and immediate intervention with stretching exercises helps in complete recovery of Fibromatosiscolli of infancy.

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