Original Research Paper

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Radiology

CASE REPORT- FIBROMATOSIS COLLI

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ABSTRACT Fibromatosis colli or sternocleidomastoid tumour of infancy is a condition of benign proliferation of fibrous tissue within the sternocleidomastoid muscle resulting in focal or diffuse enlargement of sternocleidomastoid muscle. Fibromatosis colli typically presents a few weeks after birth with a slight male predilection and is unilateral (right sided) in 73% cases (1). It is thought to be related to birth trauma. We report a case of a fibromatosis colli in a 3 week old new born who was diagnosed using ultrasonography and treated with physiotherapy.

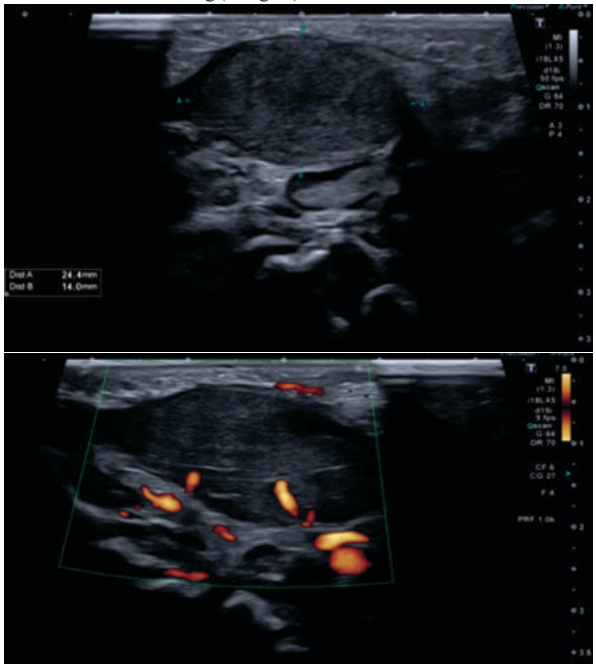
KEYWORDS : Pseudo tumour, fibromatosis colli, sternocleidomastoid tumour.

INTRODUCTION-

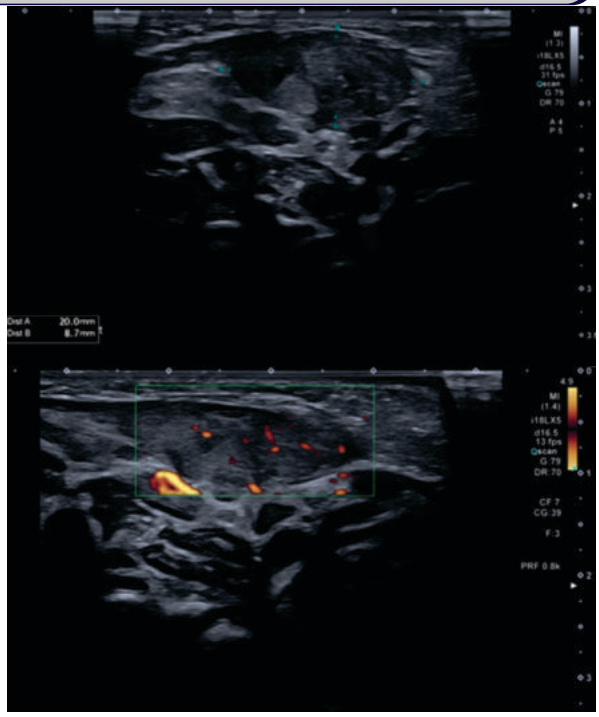
Fibromatosis colli is a rare form of fibromatosis that occurs within the sternocleidomastoid muscle. It presents a few weeks after birth and is usually associated with birth trauma such as forceps delivery or in utero malposition. It typically presents a few weeks after birth as a unilateral neck mass, most commonly right sided and affects males. The exact aetiology is still not known. However, birth trauma and in utero malposition resulting in obstructed venous flow, which in turn leads to necrosis and fibrosis in the muscle [2]. This is a benign condition which can be treated with 4 to 8 months of physiotherapy. We present a case in a 3 week old infant who had a right neck swelling that was noticed by the father a few days before.

OBSERVATION-

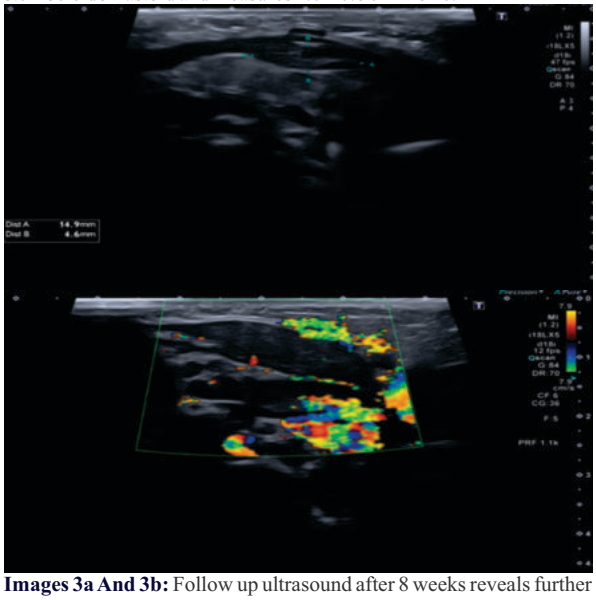
A 3 week old male new born was brought in for ultrasound of the right neck swelling on an Outpatient basis. The mother revealed that she had a difficult labour and the new born was delivered by natural assisted birth. On clinical examination a focal firm swelling was seen along the right side of the neck. On ultrasound, a fusiform isoechoic swelling along the right sternocleidomastoid muscle was seen (Image 1a) which measured 2.4 x 1.4 cms (TR x AP) in size and revealed vascularity on power Doppler (Image 1b). Few sub-centimetre sized lymph nodes were seen along the jugular chain which revealed central hilar vascularity. The patient was discussed in the local MDM and a follow up ultrasound in 4 weeks and physiotherapy was advised. On follow up ultrasound, the swelling appeared to have reduced in size (Images 2a and 2b). A further follow up after another 4 weeks revealed near total resolution of the swelling (Image 3).



Images 1a And 1b: Fusiform isoechoic swelling along the right sternocleidomastoid with mild vascularity on power Doppler measuring 2.4 x 1.4 cm in size.



Images 2a And 2b: Follow up ultrasound after 4 weeks reveals reduced size in previously demonstrated lesion along the right sternocleidomastoid and measures 2.0 x 0.8 cm in size.



Images 3a And 3b: Follow up ultrasound after 8 weeks reveals further reduction in size of the lesion measuring 1.5 x 0.4 cm in size.

DISCUSSION-

Fibromatosis colli is a rare form of fibrosis that occurs in the sternocleidomastoid muscle. New-borns present with unilateral neck mass occurring 2 to 4 weeks after birth. It is seen in males and is usually right sided. This condition is associated with birth trauma and difficult labour such as forceps use or breech delivery. Some non-traumatic aetiologies that have been reported include infection or heredity [(1)].

Fibromatosis colli is essentially a clinical diagnosis and is suspected in cases of unilateral neck swelling in new-borns with history of birth trauma. Ultrasound is the key imaging modality and the gold standard to confirm the diagnosis due to its availability, low cost and absence of radiation. It is used to rule out adenopathies, invasion or mass effect on adjacent structures and to ensure resolution on follow-up imaging. It typically shows a fusiform or ellipsoid thickening of the sternocleidomastoid muscle. The enlarged area moves synchronously with the rest of the sternocleidomastoid muscle. On spectral Doppler, a high resistance waveform is seen [(3)].

Although CT may also be used to assess the pseudo tumour, its use is not advocated due to significant radiation exposure [(4)]. On MRI, it reveals decreased signal intensity of the mass on T2 weighted sequences as compared to gradient recalled T1W images because of the presence of fibrous tissue [(5)]. MRI may also be used to eliminate further differentials and ensure no airway or vascular compression.

Treatment is mainly conservative and usually requires nothing more than physiotherapy. Spontaneous resolution is usually seen in 4 to 8 months.

CONCLUSION-

Fibromatosis colli is essentially a clinical diagnosis and can be confirmed using ultrasonography. It is a benign pseudo tumour of the sternocleidomastoid muscle in neonates. Physiotherapy with follow up would suffice in majority of the cases. MRI is advocated in doubtful ones [(6)].

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