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Case Report

Fibromatosis Coli Neonatal: A Case Report

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Abstract

Fibromatosis colli (FC) is a rare pseudotumor of the sternocleidomastoid muscle (SCM), causing congenital torticollis in newborns or infants. The etiopathogenic mechanism of its occurrence is controversial. Diagnosis relies on ultrasound, which reveals characteristic thickening of the sternocleidomastoid muscle. We report a case diagnosed by ultrasound in a newborn who was in breech presentation.

Keywords: *Fibromatosis Coli; Congenital Torticollis; Sternocleidomastoid Muscle; Ultrasound*

Introduction

Fibromatosis colli was first described by the German Hulbert as tumor-like torticollis of the sternocleidomastoid muscle (SCM). It is a benign lesion of the SCM muscle, related to congenital fibrosis, the pathophysiological mechanism of which remains poorly understood and controversial. Clinically, it presents as a lateral cervical swelling and torticollis [1,2]. Despite the diagnosis being easily suspected clinically, ultrasound remains the preferred examination to confirm the diagnosis, to rule out other causes of congenital torticollis and lateral cervical mass in newborns and infants, and especially to ensure surveillance.

Case Report

A 23-day-old female newborn presented with a left laterocervical tumefaction. The pregnancy was well attended and delivered by caesarean with breech presentation. Clinical examination revealed a left cervical tumefaction, ovoid, painless, firm and mobile with no inflammatory signs.

Cervical ultrasound revealed a fusiform thickening of the left sternocleidomastoid muscle measuring 12 mm and extending over 38 mm and respecting the surrounding structures, notably the jugulocarotid axes: This is the fibromatosis colli of the left sternocleidomastoid muscle (Figure 1). The contralateral sternocleidomastoid muscle was normal (Figure 2).

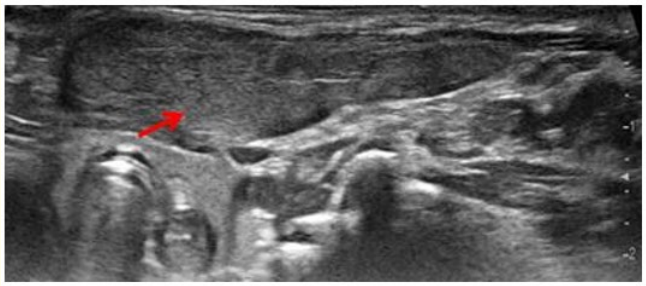

Figure 1: *Cervical ultrasound showing fusiform thickening of the left sternocleidomastoid muscle: Fibromatosis colli (red arrow).*

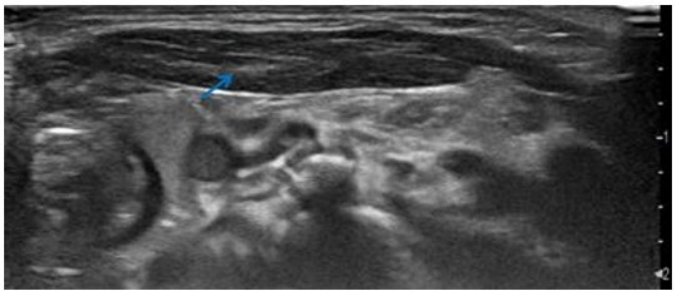

Figure 2: *Normal right sternocleidomastoid muscle (Blue arrow).*

Discussion

Fibromatosis colli or infantile pseudotumor of the sternocleidomastoid muscle is a rare cause of benign neonatal cervical mass. It affects 0.4% of live births [3,4]. According to the 2014 WHO classification of soft tissue tumors, fibromatosis colli is classified as a benign fibroblastic proliferation [5]. The right sternocleidomastoid muscle is involved in 75% of cases with a male predominance [4,6]. Bilateral involvement is found in 2% to 8% of cases [2].

The etiopathogenesis of fibromatosis colli remains unknown. For some authors, it is the result of fibrosis and contracture of the muscle, which are favorized by compartment syndrome, and ischemia due to intrauterine fetal malposition [7]. For others, it is the result of trauma to the sternocleidomastoid muscle during dystocic delivery. These two mechanisms may be interrelated [7]. Fibromatosis colli in our patient was explained by intrauterine fetal malposition. Other causes have also been reported, such as heredity and infection [8].

The diagnosis of fibromatosis colli is primarily clinical, and should be suspected whenever congenital torticollis is present. It manifests as a firm, mobile, laterocervical tumefaction at one with the sternocleidomastoid muscle, appearing 2 to 4 weeks after a dystocic delivery [9,10]. Clinical diagnosis is often sufficient, and cervical ultrasonography is indicated to eliminate other differential diagnoses when the clinical features are atypical.

Ultrasound is the investigation of choice; it reveals a fusiform enlargement of the muscle, whose movements are synchronous with those of the sternocleidomastoid muscle [4,6,9,10]. If ultrasonography is inconclusive, further investigation is pursued with CT or MRI, which show muscle enlargement. Cytopuncture is indicated to exclude other congenital, inflammatory or tumoral causes. It shows an increase and thickening of collagen fibers [11].

Treatment of FC is based on physiotherapy, which consists of placing infants on their backs with faces turned towards the side of the lesion. Even in the absence of treatment, the evolution of FC is marked by spontaneous remission within 4 to 6 months [12]. Surgery is recommended if symptoms persist beyond one year. This may involve open tenotomy or removal of the mass [3,13,14]. Recently, the use of botulinum toxin as an intra-lesional injection is an alternative to surgery [6].

Conclusion

- Fibromatosis coli is the main cause of neonatal torticollis.
- Exploration of the FC should be non-invasive and limited to ultrasound.
- Treatment is conservative, with a favorable evolution towards spontaneous remission.

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