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Ultrasound Appearance of Fibromatosis Colli: A Case Report

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Abstract **Case Report**

It was a one month old female infant. He was sent to us on 03/22/2019 at the radiology department of Mopti's hospital for a cervical ultrasound in the assessment of a cervical swelling observed by his mother a few days after his birth with a slight inclination of his head. Ultrasound exploration revealed a fusiform thickening of the left sternocleidomastoid muscle (SCM) with respect for its fibrillar appearance without other abnormalities. The diagnosis of fibromatosis colli of the left SCM muscle was retained. Fibromatosis colli is relatively rare in our environment. Complementary ultrasound at the clinic allows it diagnosis. The typical ultrasound image is the fusiform thickening of the sternocleidomastoid muscle with preservation of its fibrillar appearance. Ultrasound can also rule out other causes of cervical swelling in children.

Keywords: Fibromatosis colli, sternocleidomastoid muscle, ultrasound, Mopti Hospital

INTRODUCTION

Described for the first time by the German Hulbert as a tumoral torticollis of the sterno-cleido-mastoid (SCM) muscle, fibromatosis colli (FC) is a benign lesion of this muscle, linked to congenital fibrosis, clinically manifested by swelling laterocervical and torticollis [1-3].

Its etiology and the pathophysiological mechanism leading to muscle fibrosis are unclear and are still controversial [1]. Some suggest muscle ischemia related to obstetric trauma [4]. The involvement is usually unilateral, bilateral forms are rare. Its prevalence is about 0.4% of live births [4].

Medical imaging, in particular ultrasound, plays a major diagnostic role. It eliminates other causes of cervical masses in newborns and avoids unnecessary additional explorations [1, 4].

We report a case of fibromatosis colli in a one-month-old female infant with the aim of highlighting the role of ultrasound in its diagnosis.

OBSERVATION

It was a one-month-old female infant. He was the result of a term and eutocic vaginal delivery. His presentation was cephalic. His birth weight was 3000g and his height 51cm. He was referred to us on 03/22/2019 at the radiology department of the Sominé Dolo hospital in Mopti for a cervical ultrasound in the assessment of a left cervical swelling of hard consistency and oval shape (Figure 1). The child's mother would report seeing the swelling a few days after the baby was born with a slight tilt of her head.

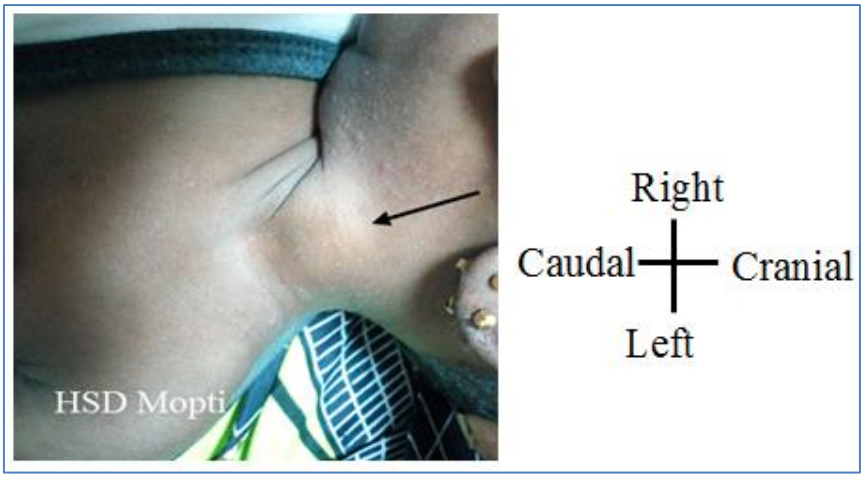

Fig-1: Photographic image showing the left laterocervical swelling (black arrow). The baby's face is deviated to the right side

Ultrasound exploration using a high frequency probe (10 Mhz) objectified a fusiform thickening of the left sternocleidomastoid muscle (SCM) measuring 34x16mm with respect for its fibrillar appearance, with clear and slightly hyperechoic contours (Figure 2). He was avascular on color Doppler. We observed no other abnormalities on ultrasound examination. Taking into account the typical sonographic appearance of the image, we retained the diagnosis of fibromatosis colli of the left SCM muscle.

As a therapeutic measure, we suggested that the mother turn the baby's face to the same side as the lesion each time she carries her on her back. The swelling had disappeared after about 5 months.

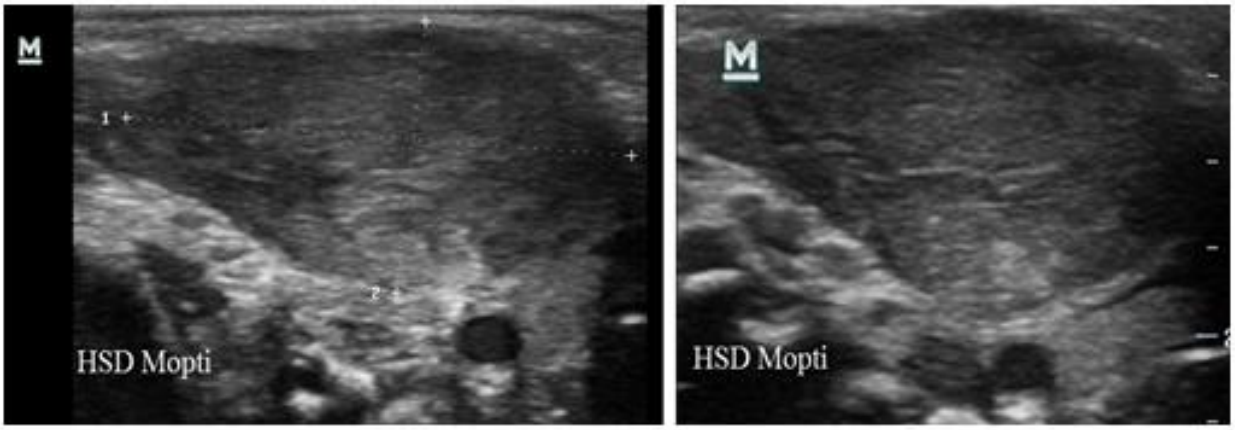

Fig-2: Ultrasound images in sagittal sections of the left sternocleidomastoid muscle illustrating its fusiform thickening (calipers).

DISCUSSION

Fibromatosis colli results from diffuse enlargement of the sternocleidomastoid muscle causing a laterocervical pseudotumor [5]. Its etiology is poorly understood, although obstetrical trauma is strongly implicated in the occurrence of this pseudotumor [4, 5]. According to some authors, it is due to uterine constraints on the fetus during pregnancy, especially in certain postures such as the seat [6, 7]. This explains the frequent association with other orthopedic malpositions such as congenital instability or dislocation of the hip, congenital asymmetric pelvis and large thoracolumbar scoliosis which must be sought and which have diagnostic value [6, 7]. The reported case was in cephalic presentation without any other morphological abnormality.

A male predominance has been mentioned. The right side seems more frequently affected, in the proportions of 60 - 75%. Bilateral involvement is rare, approximately 2-8% of cases [1, 3]. Our case was female with left side involvement.

The typical sonographic image of fibromatosis colli is fusiform thickening of the sternocleidomastoid muscle with preservation of its fibrillar appearance. Ultrasound enabled us to make the diagnosis in our case as for several other authors [1, 8, 9]. It is the examination of choice, recognized by all the authors because of its easy accessibility, its low cost and its non-irradiating nature [1,9]. Other cross-sectional imaging techniques, in particular computed tomography (CT) and magnetic resonance imaging, can also highlight muscle thickening, but these are not very

accessible, expensive and irradiating means for CT [1, 9].

According to some authors, its diagnosis is most often clinical, cervical swelling may be accompanied in some cases by facial asymmetry and an abnormal position of the head and neck, called "congenital torticollis" [5, 10]. However, they claim that ultrasound can confirm the diagnosis, but also assess the extent of the swelling and monitor its evolution [5,10].

Surgical treatment is rarely useful, less than 5% of cases when the diagnosis is early, but the proportion can reach half of the cases when the diagnosis is made beyond the sixth month [1]. FC progresses even in the absence of treatment, towards spontaneous regression in 4 to 6 months [1]. As a therapeutic measure, we suggested that the mother turn the baby's face to the same side as the lesion each time she carries her on her back. The swelling had disappeared after about 5 months. Tchaou *et al*. found total regression with these same physical measurements after 4 months [1].

CONCLUSION

Fibromatosis colli is relatively rare in our environment. The complementary ultrasound to the clinic is sufficient to make the diagnosis of this entity. The typical ultrasound image is the fusiform thickening of the sternocleidomastoid muscle with preservation of its fibrillar appearance. Ultrasound can also rule out other causes of cervical swelling in children.

Conflict of interest

The authors declare that they have no conflict of interest.

REFERENCES

1. Tchaou, M., Pegbessou, P. E., Sonhaye, L., Ahouanssou, P. Y., Amadou, A., Kolou, B., ... & N'dakéna, K. (2015). Fibromatosis colli or congenital torticollis: diagnosis and management about two cases. *The Pan African Medical Journal*, *22*, 74-74.
2. Hulbert, K.F. (1965). Torticollis. *Postgraduate Medical Journal*, *41*(481): 699-701.
3. Garetier, M., Breton, S., Pennaneach, A., Barberot, C. (2012). Chinellato Sand Rousset J. Fibromatosis colli. *Medical Press*, *41*(2); 213-214.
4. Lengane, N. I., Tall, M., Mjm, S. O. M. E., Ouermi, A., Nao, E. E. M., & Ouoba, K. (2019). Fibromatosis Colli: a propos de deux cas cliniques. *J. TUN ORL*, *42*, 74.
5. Tchagbele, O. B., Azoumah, K. D., Segbedji, K. A. R., Fiawoo, M., Kpegouni, M. T., Djadou, K. E., ... & Agbèrè, A. D. (2018). Fibromatosis colli néonatal: à propos d'un cas. *Revue de médecine périnatale*, *10*(4), 191-193.
6. Babinet, A., Forin, V., Mary, R., Filipe, G. (2000). Congenital torticollis: what to do. J Pediatr Childcare, 13; 5-11.
7. Seringe, R., Cressaty, J., Girard, B., Francoual, C.Y. (1981). The orthopedic examination of 1500 newborns in the maternity ward. Chir Pediatr, 22 ; 365-387.
8. Smiti, S., Kulkarni, N. M., & Singh, J. (2010). Case report: Fibromatosis colli in a neonate. *Indian Journal of Radiology and Imaging*, *20*(01), 45-46.
9. Adamoli, P., Pavone, P., Falsaperla, R., Longo, R., Vitaliti, G., Andaloro, C., ... & Cocuzza, S. (2014). Rapid spontaneous resolution of fibromatosis colli in a 3-week-old girl. *Case reports in otolaryngology*, *2014*.
10. Abdur-Rahman, L. O., & Cameron, B. H. (2020). Sternomastoid Tumour of Infancy and Congenital Muscular Torticollis. In *Pediatric Surgery* (pp. 419-429). Springer, Cham.