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Fibromatosis Colli: Congenital Torticollis of Muscular Origin

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Abstract **Case Report**

Definition: Fibromatosis colli is a congenital torticollis of muscular origin. It is secondary to a unilateral retraction of the sternocleidomastoid muscle, which appears enlarged and swollen on imaging. ***Radiological-Clinical Observation*:** It is a one month old infant who consults in the pediatric department for a cervical swelling lateralized to the right with a vicious neck attitude. ***Discussion***: Fibromatosis colli is an infantile pseudotumor. Its incidence is approximately 0.4% of live births. Its exact etiology is still unknown. This condition is often unilateral. Ultrasound is the examination of choice for the exploration of this disease. In case of diagnostic doubt, a cytopunction may be indicated. The treatement is generally conservative and based on motor physiotherapy. Surgical treatment is sometimes necessary in case of persistence of the lesion. Spontaneous evolution can lead to an almost total cure by the age of 24 months in most cases. ***Conclusion:*** Fibromatosis colli is considered among the rare causes of cervical masses in infants and newborns. Imaging plays an important role in its diagnosis and post-treatment follow-up. Its treatment is often conservative and the evolution is favorable.

Keywords: Fibromatosis colli, ultrasound, pseudotumor.

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DEFINITION

Fibromatosis colli is a congenital torticollis of muscular origin. It is secondary to a unilateral retraction of the sternocleidomastoid muscle, which appears enlarged and swollen on imaging.

This retraction induces an inclination of the head as well as of the cervical rachis towards the side of the retracted muscle and consequently a rotation of the cranial cavity on the contralateral side.

Its origin is not well known, but often correlated to an obstetrical trauma. The severity of the clinical picture depends on the age of the child at the time of diagnosis.

Imaging is used to confirm the diagnosis and to follow the evolution of the disease. Delayed management of this condition can lead to chronic consequences such as positional plagiocephaly.

RADIOLOGICAL-CLINICAL OBSERVATION

It is a one month old infant who consults in the pediatric department for a cervical swelling lateralized to the right with a vicious neck attitude.

The interrogation with the parents concerning the course of the pregnancy found that it was without notable complications.

The delivery was vaginal at 40 weeks of amenorrhea, with a fetus in cephalic presentation. The birth weight was 3800g with a height of 50 cm and a head circumference of 35cm.

The clinical examination, particularly neurological, was normal. On inspection, there was a vicious neck posture with an ovoid right laterocervical swelling that was painless on palpation, firm in consistency, mobile in relation to the skin plane, and without signs of inflammation opposite.

The patient was referred to us for an ultrasound scan, which revealed a fusiform thickening of the right SCM muscle measuring 42 by 20 mm, not compressing the jugulocarotid vascular axes, corresponding to a fibromatosis colli. The contralateral sternocleidomastoid muscle was normal (Fig 2).

The therapeutic management was motor physiotherapy, which resulted in complete correction of

the vicious neck attitude after 50 days with almost complete regression of the swelling after five months.

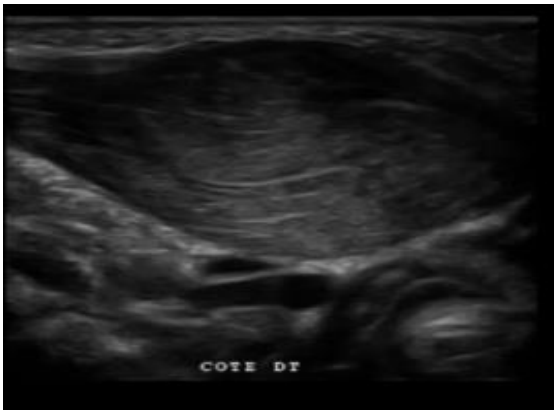

Fig 1

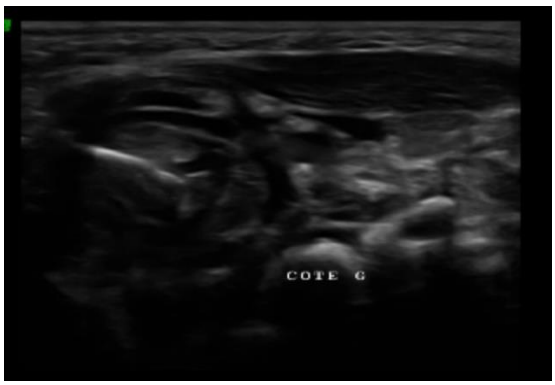

Fig 2

DISCUSSION

Fibromatosis colli is an infantile pseudotumor that corresponds pathologically to a benign fibroblastic proliferation of the sternocleidomastoid muscle. Its incidence is approximately 0.4% of live births.

Its exact etiology is still unknown, but ischemic origin following obstetrical trauma is often associated with it [1]. This condition is often unilateral, bilateral forms have rarely been described.

Clinically, fibromatosis colli manifests itself as a congenital torticollis of muscular origin. The latter includes 3 subgroups:

- Pseudotumor of the SCM muscle or fibromatosis coli
- Muscular torticollis without palpable mass with contracture,
- Postural torticollis

Generally at birth, no abnormality is noted, however, a limitation of neck movements associated with cervical swelling appear around the second week of life [2]. The sternocleidomastoid muscle is consequently shortened resulting in a torticollis with a vicious attitude and rotation of the head on the side of the lesion.

Anatomically, the sternocleidomastoid muscle consists of 2 heads, a clavicular head and a sternal head. This pathology can affect both entities.

Ultrasound is the examination of choice for the exploration of this disease. It is an accessible and non-invasive technique for diagnosis and monitoring.

It allows the demonstration of homogeneous or heterogeneous fusiform muscle thickening [3]. It can be hyperechoic or hypoechoic depending on the chronicity of the evolution. Dynamic movements can help to confirm the muscular nature of the lesion.

In case of diagnostic doubt, a cytopunction may be indicated. It allows to eliminate other causes, in particular congenital, inflammatory and tumoral causes [4].

The treatement is generally conservative and based on motor physiotherapy. Surgical treatment is sometimes necessary in case of persistence of the lesion.

Spontaneous evolution can lead to an almost total cure by the age of 24 months in most cases [5].

CONCLUSION

Fibromatosis colli is considered among the rare causes of cervical masses in infants and newborns.

Imaging plays an important role in its diagnosis and post-treatment follow-up. Its treatment is often conservative and the evolution is favorable.

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