Fibromatosis de Colli: Reporte de caso

Fibromatosis Colli: A case report

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Abstract

Introduction: Fibromatosis Colli is a benign congenital fibrous tumor that develops in the sternocleidomastoid muscle. It manifests clinically by neck swelling and restriction of the neck movement (torticollis).

Objective: To describe the fundamental diagnostic and therapeutic aspects of Fibromatosis Colli or Congenital Muscular Torticollis.

Clinical Case: A case of a 21-day-old female neonate is presented, born in breech presentation. Physical examination revealed a painless neck mass of 1.5*2 cm and head inclination to the right, which was diagnosed by ultrasound and contrasted neck tomography, with no other findings.

Conclusions: Fibromatosis Colli is a pathology that could be unnoticed in the postpartum examination of the newborn. It is important that medical staff identify it in order to avoid future complications, such as craniofacial asymmetry, cervical and thoracic scoliosis, or important ocular alterations.

Keywords: Sternocleidomastoid tumor; Torticollis; Asymmetry; Ultrasound.

Resumen

Introducción: La Fibromatosis Colli es un tumor fibroso congénito benigno que se desarrolla en el músculo esternocleidomastoideo. Se manifiesta clínicamente por hinchazón del cuello y restricción de movimiento del cuello (tortícolis).

Objetivo: Describir los aspectos diagnósticos y terapéuticos fundamentales de la Fibromatosis de Colli o Tortícolis Muscular Congénita.

Caso Clínico: Se presenta un caso de neonato de sexo femenino de 21 días de nacida mediante parto en presentación podálica. Al examen físico se encuentra masa en cuello de 1,5*2 cm indolora e inclinación de la cabeza hacia la derecha, diagnosticado con ultrasonografía y tomografía de cuello contrastado, sin otros hallazgos.

Conclusiones: La Fibromatosis de Colli es una patología que pasa desapercibida en el examen posparto del recién nacido. Es importante que el personal médico la identifique, evitando así complicaciones futuras, como asimetría craneofacial, escoliosis cervical y torácica o alteraciones oculares importantes.

Palabras clave: Tumor esternocleidomastoideo; torticolis; asimetría; ecografía.

Introduction

Fibromatosis Colli or Congenital Muscular Torticollis (CMT) is a frequent benign clinical entity, rarely diagnosed and which may occur within the first 15 days of birth (1). This pathological entity usually presents as a gradually growing fibrous tissue mass in the anterior portion of the sternocleidomastoid muscle (2). It is accompanied by restriction in the neck mobility with shortening and inclination of the head towards the affected side or in more advanced cases ocular damage. This disease has an incidence of 0.4% in infants, in 75% of the cases it is generally unilateral, affects mostly the right side and significantly higher frequencies are evidenced in male patients than in female patients. A history of complicated delivery and birth injuries may be associated in more than 50% of cases (1,3,4).

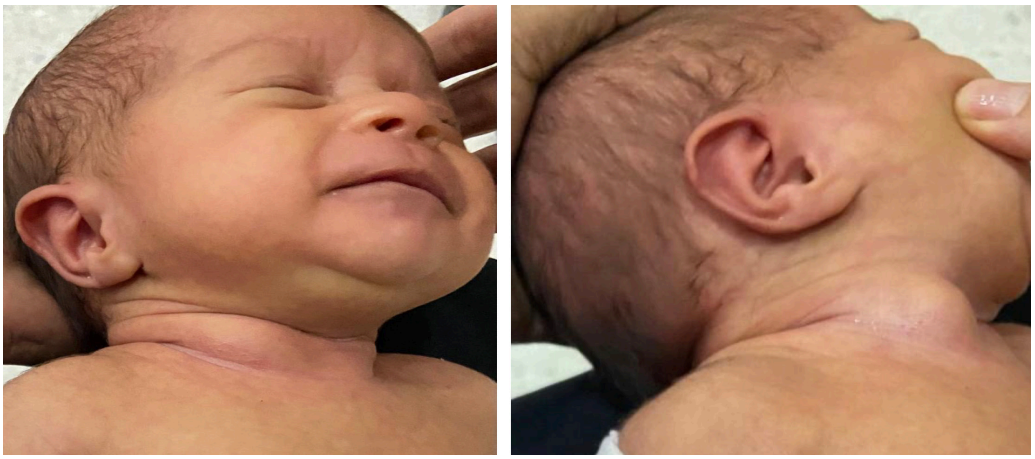
The etiology is unknown, but it is believed to be associated with a traumatic birth (e.g., breech presentation, use of forceps in delivery). Because of its location, this injury often leads to congenital torticollis. Palpable superficial masses of the head and neck are common in the pediatric population and ultimately most lesions have been shown to be benign (5). Ultrasonographically the sternocleidomastoid is diffusely enlarged in a fusiform pattern. The mass itself is usually central within the muscle, rounded or fusiform in appearance

and slightly heterogeneous in contexture (6). The aim of the present study is to present the case of a patient with fibromatosis Colli.

Clinical case

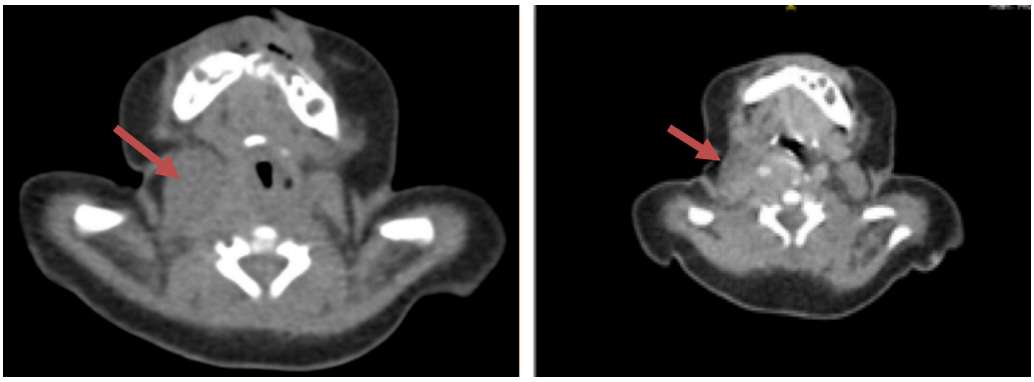
We presented the case of a 21-day-old female newborn who was admitted to the Orinoco Regional Hospital for presenting a mass in the right region of the neck and preferential inclination of the head to this side (Figure 1), with limitation of some movements (Figure 2).

Figure 1. Infant with right cervical lesion: Colli's torticollis



Prenatal history: Mother's third pregnancy, prenatal controls #8, complete negative torch, vaginal delivery, breech presentation at 37 weeks, neonatal adaptation conducted 4/7/9, weight 2745 grams, length 48 cm, joint discharge. There is no fever, trauma or respiratory signs and symptoms, no family history. The physical examination found height: 58 cm weight: 3,185 grams HR: 135 bpm FR: 38 rpm T: 36.5c SaO2 98% ambient, the neck examination showed the presence of a firm mass, partially mobile, regular edges, no change in color, no heat to the touch and apparently a painless mass of approximately 1.5 * 2 cm, rest of physical examination within normal parameters. A soft tissue ultrasound was performed, which reported an oval, hypoechoic image with scarce vascularization in its interior measuring 21x12x11 mm 10x13 mm, slight edema of the skin and subcutaneous cellular tissue adjacent to the lesion described, for which a CT scan was performed (Figure 2).

Figure 2. Contrast-enhanced CT image of the neck; the arrow indicates the affected area on the right



The clinical and radiological findings favored the diagnosis of fibromatosis Colli, an uncommon pathology, which is not taken into account in the examination of the newborn at birth, nor is it included in the signs of alarm to parents, if they notice asymmetries or difficulties in the child's head movements at the time of discharge from the hospital.

The parents were instructed to perform appropriate stretching exercises on the newborn, and she was referred to physical therapy for outpatient follow-up. After the four (4) week period, managed by physical therapy, the size of the mass has decreased as corroborated by the control ultrasound (Figure 3 and 4). Patient continues in therapy management and effective education to the parents so that, the adherence to the management will be effective, and thus to be able to have satisfactory results.

Figure 3. Longitudinal ultrasound image of the right sternocleidomastoid muscle; the arrow indicates the area of concern

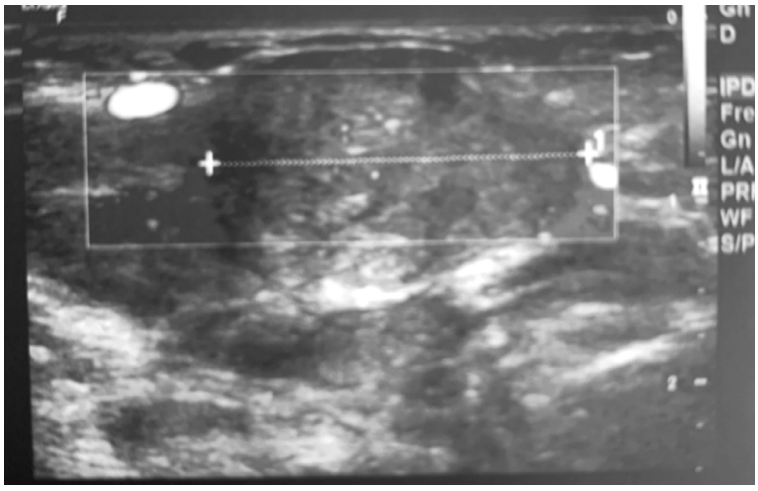
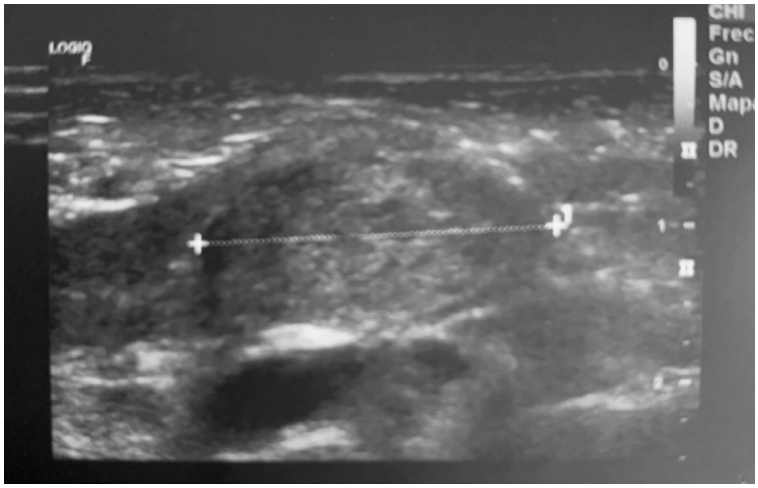


Figure 4. Ultrasound image of the right sternocleidomastoid muscle; the arrow indicates the area, measuring 21 mm.



Discussion

Fibromatosis Colli is a rare but benign infantile disease, with an incidence of 0.4% in newborns (6). It is characterized by localized swelling of the sternocleidomastoid, a slowly growing neck mass is palpated on physical examination, usually within the first 8 weeks of life in newborns; it is rarely bilateral and in 75% of cases, it is presented on the right side (6). The average age of presentation is 24 days and there is a male predominance. As mentioned, the clinical presentation of this entity in the present clinical case was located on the right side and the age of presentation is similar to that described in the present case. Although male involvement is more common, female involvement has also been described. In approximately 20% of cases, there is associated torticollis, which causes an ipsilateral head inclination and contralateral rotation of the face and chin. In addition, it is believed that 6% to 20% of affected infants will have associated musculoskeletal anomalies such as facial asymmetry and hip dysplasia (7).

As for etiology, there is a close association with birth trauma. The literature seems to support this theory, proposing that the sternocleidomastoid muscle tear presents congenital shortening during delivery, resulting in forms of hematomas and subsequent fibrosis. This process eventually leads to collagen deposition and fibroblastic migration around individual muscle fibers, which then suffer from atrophy (7). Other theories include intrauterine malposition, venous occlusion, and intramuscular hemorrhage (6). In the patient of the presented case, considering the perinatal history, it could be associated that the pathophysiological mechanism for the development of the entity was the trauma during birth.

The ultrasound is the diagnostic method of choice, avoiding the use of more expensive or even complex methods that require some type of contrast or unnecessary radiation for the newborn. In the ultrasonography, fibrosis or involvement of the sternocleidomastoid muscle is observed in all cases presenting this pathology (8,9).

The management of patients with fibromatosis coli is physical therapy aimed at cervical stretching, trunk and neck strengthening, activities to promote symmetrical movement, education and support for parents or caregivers providing home care (10). There is strong evidence that early physical therapy intervention is more effective than intervention initiated later (11). If started before 1 month of age, 98% of infants diagnosed with fibromatosis Colli achieve normal cervical range of motion within 1.5 months. Waiting until after 1 month of age prolongs the episode of physical therapy care for up to 6 months and waiting until after 6 months to begin physical therapy may require 9 to 10 months of physical therapy intervention, and progressively fewer infants achieve normal range (11,12,13).

It is necessary to perform a physical examination of every newborn, in order to evaluate and detect alterations in the movement and mass of the neck, the vast majority of physicians focus on the search for other congenital alterations or defects such as anal, esophageal, genital, hip, among others, delaying the detection of the diagnosis of congenital torticollis and the possibility of establishing highly effective early therapeutic measures in the first month.

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