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RESEARCH ARTICLE

A RARE CASE OF NEONATAL BILATERAL CERVICAL FIBROMATOSIS COLI DIAGNOSED BY FINE NEEDLE ASPIRATION CYTOLOGY

***Dr. Nitika Grover, Dr. Promil Jain, Dr. Himadri Hazarika, Dr. Raman Kapil, Dr. Sonu Choudhary, Dr. Rajeev Sen**

Department of Pathology, Pt. B.D. Sharma PGIMS, Rohtak

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ABSTRACT

Fibromatosis Coli or Sternomastoid Tumor also known as Pseudotumor of Infancy is a benign, rare fibroblastic lesion presenting in infants as neck swelling or mass. This benign tumor of uncertain etiopathogenesis usually appears in first two months of life and is one of the causes of congenital torticollis. On ultrasonography, a diagnosis of cervical lymphadenopathy was suggested. FNAC was performed from both the swellings and a diagnosis of Fibromatosis Coli was made based on these cytomorphological findings. Cytological findings of FC includes bland appearing mature fibroblasts and varying proportion of mature and immature skeletal muscle fibers in a clean background devoid of hemorrhage and necrosis. We present a case of one month old afebrile female infant, vaginally delivered at home, presented to the Pediatric OPD with bilateral neck swelling noticed by the mother 2 weeks following birth. FNAC is a rapid and useful tool in its diagnosis and management along with radiological investigations such as USG, CT, MRI.

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INTRODUCTION

Fibromatosis Coli or Sternomastoid Tumor also known as Pseudotumor of Infancy is a benign, rare fibroblastic lesion presenting in infants as neck swelling or mass. This benign tumor of uncertain etiopathogenesis usually appears in first two months of life and is one of the causes of congenital torticollis. Although birth trauma or malpositioning in the uterus are the recognized etiologies (Yalawar *et al*., 2014). Swelling in the cervical region often leads to its misdiagnosis as cervical lymphadenopathy by the clinicians. Other differentials include hemangioma, congenital goitre, branchial cleft cysts and sarcoma (Sharma *et al*., 2003). In such scenario, FNAC serves as a simple, minimally invasive, cheap, rapid mode of diagnosis in categorizing such neck swellings.

Case report: A one month old afebrile female infant, vaginally delivered at home, presented to the Pediatric OPD with bilateral neck swelling noticed by the mother 2 weeks following birth. Both swellings measured 3 x 2 cm each, ill-defined, firm in consistency overlying the sternocleidomastoid muscle. Skin over the swelling appeared normal. There was no history of birth trauma. Baby cried immediately after birth and was not immunized till date.

Corresponding author:* **Dr. Nitika Grover,
Department of Pathology, Pt. B.D. Sharma PGIMS, Rohtak.

There was no evidence of other congenital abnormalities. On ultrasonography, a bilateral cervical swelling measuring 3.5 x 1.5 cm with heterogenous echotexture was noted and a diagnosis of cervical lymphadenopathy was suggested. Hence, FNAC was advised to confirm tubercular etiology. All other routine investigations were within normal limits. FNAC was performed from both the swellings using a 23 G needle fitted to a 20 ml syringe. Smears were prepared, air-dried and stained with Leishmann and Giemsa stain. Light microscopy revealed bland looking spindle shaped cells having eosinophilic cytoplasm and plump nuclei scattered singly and in groups. The background was haemorrhagic without any inflammation or necrosis. No epithelioid cell granulomas were seen. A diagnosis of Fibromatosis Coli was made based on these cytomorphological findings. Parents were reassured and conservative management was advised.

DISCUSSION

Fibromatosis Coli (FC) is a benign rare tumor of debatable origin presenting in infancy. Its incidence is reported to be around 0.4% in all newborns (Porter, 1995). Birth trauma induced by difficult labour and breech delivery is usually the associated etiology (Weiss *et al*., 2001). It generally presents as a unilateral and rarely bilateral, firm to hard swelling in the cervical region during second to fourth week of life

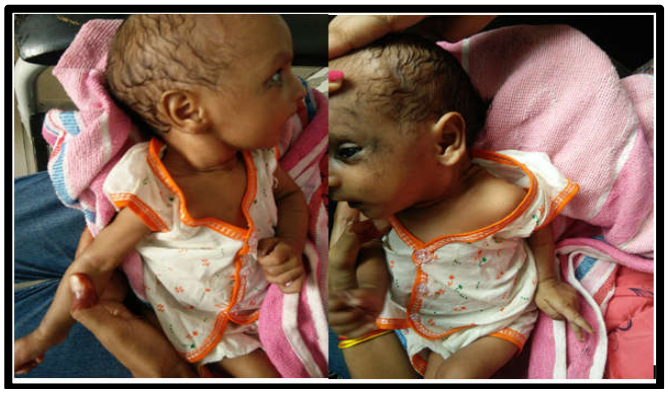

Fig. 1. Infant presented with bilateral neck swelling

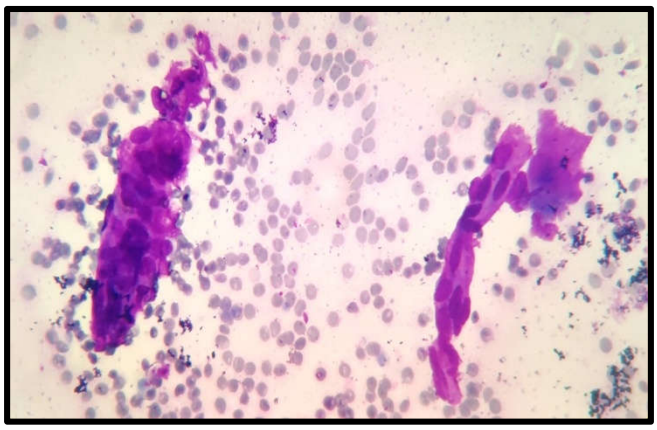

Fig. 2. FNA smear showing a cluster of fibroblasts with pale cytoplasm along with a multinucleate giant cell in ahaemorrhagic background (Leishmann x 400)

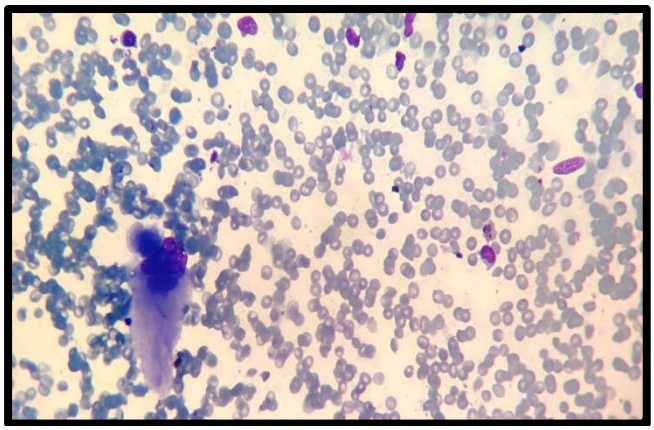

Fig. 3. FNA smear showing a multinucleate giant cell (Giemsa x 400)

(Kumar *et al*., 2003). Although a self-limiting entityit raises grave concern for the parents and the clinician (Pereira, 1999). The diagnosis of FC becomes relatively easier if the patient presentswith Congenital torticollis which is seen only in 20% of cases (Schneble, 2018). However, several other differentials should be taken into consideration if the patient does not present with torticollis.

Other congenital defects such as club foot, congenital dislocation of hip etc. may be associated (Khan *et al*., 2014). FC in the cervical region in this age group should be differentiated from other inflammatory, neoplastic and congenital causes. The present case was however, a normally delivered female baby, with no history of birth trauma and presented with bilateral neck swelling. Cytological findings of FC includes bland appearing mature fibroblasts and varying proportion of mature and immature skeletal muscle fibers in a clean background devoid of hemorrhage and necrosis. Collagen bundles, muscle giant cells, bare nuclei in the background may also be a part of the cytological spectrum (Pereira *et al*., 1999). These cytomorphological findings differentiate FC from the other differentials, thus making FNAC is a rapid and useful tool in its diagnosis and management along with radiological investigations such as USG, CT, MRI.

Conclusion

We have presented this case because of its rare bilateral presentation as a cause of neck swelling in an infant. The role of FNAC in the diagnosis of this self-limiting, easily accessible benign condition is also highlighted. Thus, we recommend FNAC as it prevents unnecessary investigations and surgical interventions.

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