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# A Case of Fibrous Hamartoma in Term Neonate

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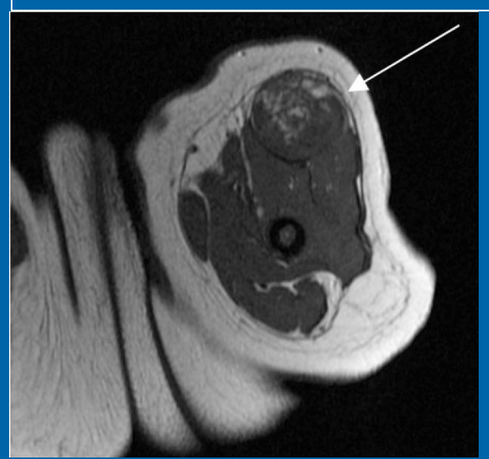
# Fibrous Hamartoma in Term Neonate

## INTRODUCTION

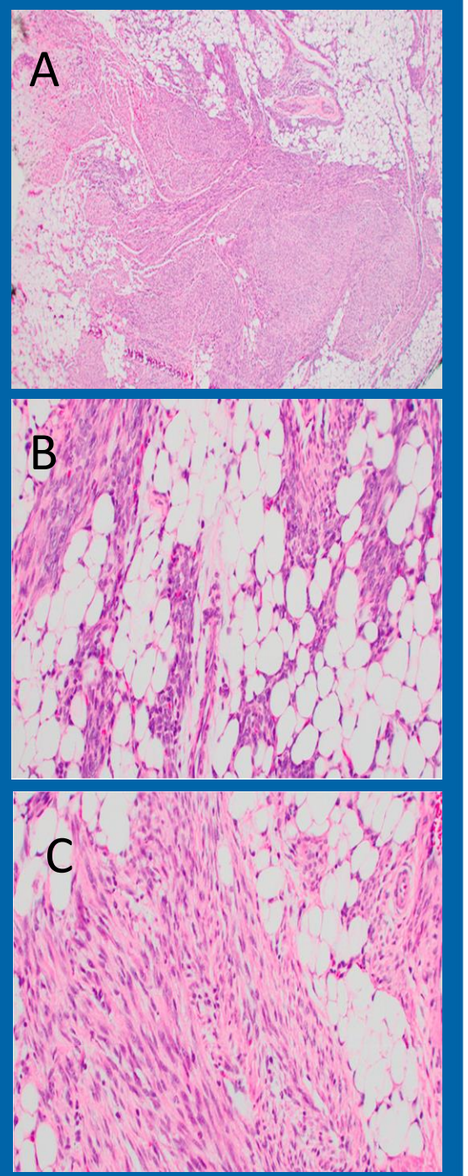
Fibrous hamartoma of infancy (FHI) is a rare, benign lesion characterized as a tumor of myofibroblastic origin that has characteristic features of triphasic histology—disorganized mesenchymal, fibrous, and adipose tissue without mitotic figures. These lesions typically arise as a single, solitary mass, are most located on the extremities, trunk, sacrum, or scrotum and are typically 0.5 to 9.0 centimeters in size. Only roughly 200 cases have been reported in the literature. Most cases occur in young children; 91% of cases arise within the first year of life. Males are more often affected in a ratio of 2.4:1. Roughly 20% of cases have been documented as congenital. Treatment is surgical excision, which is often curative; local recurrence is rare and incidence decreased by obtaining negative margins.

## CASE

- Term female with congenital anterior left thigh mass without overlying skin changes and normal neurologic exam
- Discharged from nursery after newborn course complicated by hyperbilirubinemia
- More condensed and firm at routine PCP follow up prompting investigation
- Femur x-ray demonstrated mass involvement of soft tissues without bony involvement
- Left thigh MRI demonstrated heterogenous mass with internal fat and internal enhancement
- Tissue biopsy demonstrated low grade, benign appearing myofibroblastic and fibroblastic neoplasm and classical features of fibrous hamartoma



MRI demonstrates a heterogenous mass with internal fat and moderate heterogeneous internal enhancement with marked peripheral enhancement distally within the rectus femoris muscle belly




Classic histologic features of fibrous hamartoma of infancy. The spindle cells show an intimate relationship with mature adipose tissue (A–C) and vary from primitive (B) to fibroblastic (C). Cytologically, the cells are variably plump and bland without cytologic atypia.

## DISCUSSION

Fibrous hamartoma of infancy presents as a slow-growing an asymptomatic subcutaneous mass. Most tumors are freely mobile, nontender, and well circumscribed. Differential diagnosis typically includes hemangioma, myofibroma, fibrous hamartoma, infantile fibrosarcoma, infantile myofibromatosis, rhabdomyosarcoma, and non-rhabdomyosarcoma soft tissue tumors. Initial work-up typically begins with radiologic evaluation to distinguish location and size of lesion. On CT and MR imaging, lesions are described as soft tissue mass and adipose signal intensity. Ultrasound imaging typically has no role in diagnosis of FHI. Histopathologic features and immunostaining are used to aid in diagnosis. Classic histology includes primitive undifferentiated spindle cells and mesenchymal tissue in whorls, bands, or nests, well-defined fibroblastic to myofibroblastic bundles, and intimate admixture of mature adipose tissue. Immunostaining will demonstrate positivity for S100 protein (adipocytes), CD34 (mesenchymal tissue), and SMA (myofibroblasts). Treatment of choice is local excision with negative margins; if unable to be removed due to mutilating location or poor cosmetic outcome, tyrosine kinase inhibitors have utilized for targeted therapy. Local recurrence is rare and there are no cases documenting metastasis or malignancy. Due to the rarity of the diagnosis, it is important to recognize its characteristic diagnostic criteria and ensure its place on the differential diagnosis as it is largely benign and does not warrant aggressive therapy.

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