Intramuscular Hemangioma of Semitendinosus - Savage Semblance with Serene Outcome

Vani.D¹, Ashwini.N.S²*, Sandhya.M³, Bharathi.M⁴

¹Associate Professor, ²&³Post Graduate Students, Professor & Head⁴, Department of Pathology, Mysore Medical College & Research Institute, Mysore.

ABSTRACT

Skeletal muscle hemangiomas are rare in the spectrum of benign vascular neoplasms with an incidence of 0.8%. Majority of intramuscular hemangiomas occur in young adults with no sex predilection. They present as chronic pain and swelling in the muscle, with lower extremities being the most common site of involvement. Diagnostic ultrasound is an appropriate initial imaging modality although MRI is the investigation of choice. Intramuscular hemangioma, an infrequent but important cause of musculoskeletal pain is often difficult to diagnose clinically. More than 90% of skeletal muscle hemangiomas are misdiagnosed due to the location and inadequacy of radiological and cytological findings in achieving a pre-operative diagnosis. This report describes a rare case of 20 year old female who presented with pain and huge swelling in the left thigh which clinically, posed a diagnostic and therapeutic difficulty.

KEYWORDS: Intramuscular hemangioma, Thigh.

INTRODUCTION

Hemangiomas constitute 7-10% of all soft tissue tumors. Intramuscular hemangioma is a rare entity accounting for 0.8% of all hemangiomas [1, 2]. The majority of intramuscular hemangiomas occur in young adults with a tendency to manifest before the age of 30 years. Unlike cutaneous hemangiomas these deep seated hemangiomas affects sexes in roughly equal numbers. Intramuscular hemangiomas have a wide anatomical distribution with propensity to occur in lower extremities. The present case deals with intramuscular hemangioma-mixed type of semitendinosus in a 20 year old girl for which wide surgical excision was performed.

CASE REPORT

A 20 year old female presented with a gradually progressive swelling in the left thigh associated with persistent pain of 6 months duration. The pain aggravated on exercise. There was no history of trauma or restriction of movements. On examination a non-compressible, non-pulsatile swelling measuring about 15X12 cm was present in the back of left thigh. Overlying skin was normal, with no discoloration and no local rise of temperature. X-ray and diagnostic ultrasound were inconclusive. MRI showed a 16X12 cm, highly vascular lesion arising from semitendinosus. Fine Needle Aspiration cytology revealed acellular hemorrhagic aspirate. Differential diagnosis of sarcoma, fibroma, and intramuscular lipoma were considered. Wide surgical excision was performed and subjected to histopathological examination.

On gross examination, tan to yellow mass measuring 14×11×9 cm was observed. Cut surface showed thrombosed vessels with diffuse grey yellow areas in adjacent muscle which was irregularly infiltrated by tumor (Figure 1). Histological examination showed skeletal muscle bundles interspersed with lobules of proliferating blood vessels (Figure 2). These blood vessels were of capillary type and cavernous type lined by plump and flattened benign endothelial cells respectively. Admixed areas of mature adipose tissue were observed (Figure 3). These findings facilitated the diagnosis of Intramuscular hemangioma-mixed type.
Figure: 1 Tan to yellow mass showing thrombosed vessels with diffuse grey yellow areas in adjacent muscle which was irregularly infiltrated by tumor

Figure: 2 showing bundles of skeletal muscle interspersed with proliferating blood vessels of varying sizes

Figure: 3 showing varying sized blood vessels admixed with adipose tissue

DISCUSSION

Hemangiomas are common benign soft tissue tumors with myriad manifestations. These occupy a gray zone between hamartomatous malformation and true neoplasms. Majority are superficial lesions that have predilection for head and neck region [1]. Intramuscular hemangioma, first reported by Liston in 1843 is rare with an incidence of 0.8% of all benign vascular tumors and usually locates in the lower extremities [1,2,3]. Although clearly benign, they can become very large and unsightly. Soft tissue hemangiomas may originate from skin, subcutaneous tissue, synovium and muscle [4].

Hemangiomas frequently manifest in the first three decades of life [5]. The younger age and long duration of symptoms raise the possibility of these tumors being congenital in origin [1]. Although a history of trauma is given in about one-fifth of cases, there is no indisputable evidence that the lesions are caused by trauma, and it appears more likely that trauma merely aggravates the underlying tumor [1]. Clinically, these lesions are more likely to pose diagnostic problems than superficial hemangiomas. They present simply as enlarging soft tissue mass with few signs or symptoms to belie their vascular nature.

Intramuscular hemangiomas vary greatly in their gross and microscopic appearances depending on its type [1]. Traditionally intramuscular hemangiomas have been classified histologically, according to vessel size and predominant blood vessels type, into small (capillary), large (cavernous) and mixed types [1, 6]. In practice however, most lesions appear to be of mixed type and can consist of capillaries, veins, small arteries and even lymphatic like channels making reliable sub-classification difficult if not impossible [7]. It is important to distinguish these from intramuscular lipoma, angiosarcoma and well differentiated liposarcoma. Recurrence rates are high, ranging from 18-
50%, usually as a result of incomplete primary excision. However, the risk of malignant transformation or metastasis is very rare [1].

CONCLUSION
Lesions arising in muscle may create significant diagnostic uncertainty due to their unorthodox locations, varied clinical presentations and interpretation of imaging features being arduous. Hence, this report emphasizes the importance of histopathological examination in arriving at an accurate diagnosis. Intramuscular hemangioma whilst being a rare entity should be included in the differential diagnosis in young adults with a progressively enlarging mass in the extremity.

REFERENCES

*Corresponding author: Dr. Ashwini.N.S
E-Mail: ashwinins44@gmail.com