

A Case of Mistaken Identity: Case Report of Malignant Peripheral Nerve Sheath Tumour Presumed To Be Benign In Nature

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INTRODUCTION:

Malignant peripheral nerve sheath tumour (MPNST) is a rare malignant soft tissue neoplasm found in 0.001% of general population. ¹Half of MPNST are associated with Neurofibromatosis-1 and sporadic cases of MPNST are sparsely reported in literature.

REPORT:

A 29-year-old man came presenting with a painless enlarging mass over his right scapular region for past 1 year. He has no constitutional symptoms, numbness or radiculopathy over his right upper limb. There was a large, firm mass that was attached to underlying structure with overlying skin changes.

MRI described a well-encapsulated lobulated lesion which is isointense to muscle in T1W and hyperintense in T2W/STIR images. There is avid enhancement with central areas of non-enhancement, a thin fibrous capsule which appear hypointense in all sequences noted. It was reported as a right upper back cutaneous lesion suggestive of peripheral nerve sheath tumour likely benign in nature.

Despite MRI findings, a wide local excision of the right shoulder mass was done. HPE of the right shoulder mass shows spindle cells arranged in storiform pattern to fascicles with focal nuclear palisading seen with S100 immunohistochemistry positive consistent with malignant peripheral nerve sheath tumour.

MPNST remains to be a diagnostic and therapeutic challenge, MRI is still unable to reliably differentiate between benign and malignant tumors. ²

Due to the absence of specific morphological criteria or immunohistochemical



Figure 1

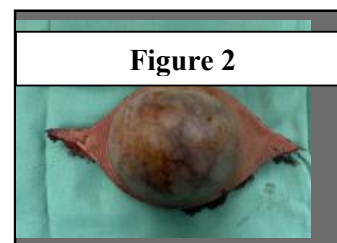


Figure 2



Figure 3

Figure 1: Clinical photo of patient's mass

Figure 2: Mass post-excision biopsy

Figure 3: MRI T2W images of the mass

tests, it can be difficult to distinguish MPNST from other sarcomas²

CONCLUSION:

MPNST and benign peripheral nerve sheath tumour share many similar clinical, radiographic presentation. To achieve definitive diagnosis, histopathology is required either via biopsy or excision.

REFERENCES:

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2. Prudner BC, Ball T, Rathore R, Hirbe AC. Diagnosis and management of malignant peripheral nerve sheath tumors: Current practice and future perspectives. Neurooncol Adv. 2019 Nov 14