Case Report

Myopericytoma of neck region – A case report

V. Maheshwari · K. Alam · A. Jain · S. C. Sharma

Abstract

A 42-year-old male presented with a history of an enlarging painless swelling on the right side of neck for 15 days. It recurred within three months of partial excision. Immunohistochemistry showed positivity for Smooth Muscle Actin [SMA]. This newly described entity is being reported for its unusual histological features and its differential diagnosis with other spindle cell and vascular lesions of soft tissues.

Keywords Myopericytoma · Neck

Introduction

Myopericytoma is a recently described soft tissue neoplasm with perivascular myoid differentiation. It encompasses a group of tumors that originate from perivascular myoid cells and show a range of histological growth patterns [1]. It usually occurs in the soft tissues of the extremities [2], but unusual sites like thoracic spine [3], intracranial location [4], and intravascular [5] sites have also been reported. We hereby present a case report of this unusual lesion in neck region. It is perhaps the first reported case in Indian literature. The clinicohistopathological and immunohistochemical features with relevant literature are described and reviewed.

Case report

A 42-year-old male presented with a history of an enlarging painless swelling on the right side of neck for 15 days. There was previous history of the lump removal three months back but then it was not subjected to histopathological examination. The patient was of average built with no features of cervical lymphadenopathy. No previous history of trauma or tuberculosis was present. Systemic examination was unremarkable. Excisional biopsy of the lump, and then histopathological examination was done.

It was an irregular unencapsulated greyish white soft tissue piece measuring 1.5×0.8 cm, firm in consistency. Cut surface showed whitish areas with small pinpoint hemorrhages. On microscopy, H&E stained sections showed numerous thin walled vascular channels with concentric perivascular arrangement of plump spindle cells (Fig. 1). These cells had ovoid to spindle shaped nucleus with eosinophilic cytoplasm. Interspersed myxoid areas were also seen. Immunohistochemistry showed positivity for Smooth Muscle Actin [SMA], (Fig. 2) and negativity for Desmin. A diagnosis of Myopericytoma of neck was made.

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Fig. 1 Photomicrograph showing numerous thin walled vascular channels with concentric perivascular arrangement of plump spindle shaped cells (H & E, ×400).

Fig. 2 Photomicrograph showing a diffuse SMA (Smooth Muscle Actin) positivity of spindle cells on immunohistochemistry (×100).

Discussion

Myopericytoma represents a spectrum of tumors showing perivascular myoid differentiation [6]. It is a benign tumor generally arising in the superficial and subcutaneous tissues of the extremities [2]. Very few cases have been reported in other locations like thoracic spine [3], intracranial area [4]. Only 4 cases have been reported in the head and neck [2]. The age of these patients usually ranges from 13–87 years with a median of 52 years [2]. Our patient was a middle-aged man of 42 years.

Morphologically these tumors overlap Hemangiopericytoma, Myofibroma, Infantile type myofibromatosis in adults [6], glomus tumor [7] and Angioleiomyoma [2].

These myoid tumor cells stain positively for Alpha Smooth Muscle Actin (ASMA), often for h-caldesmon whereas desmin is usually negative [2]. It is also negative for CD 31, CD 34, S-100 and CK [7]. These tumors have also been reported in chronic scar [8].

The reason for the neoplastic proliferation of perivascular myoid cells is presently unknown. Most cases of myopericytoma behave in a benign fashion, but local recurrences can occur [2], as was seen in our case. Rarely metastasis may occur in atypical and malignant neoplasm [9].

Conclusion

This newly described entity is being reported for its unusual histological features and its differential diagnosis with other spindle cell and vascular lesions of soft tissues.

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