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Citation

Abstract
Palisaded myofibroblastoma of lymph node is a rare entity and only a few cases have been documented in the literature and atypical palisaded myofibroblastoma is still rare. Till 1989, only 32 cases of palisaded myofibroblastoma or intranodal hemorrhagic spindle cell tumor of lymph node have been reported in the literature. We report a case of 60 year old female who presented with lump in the right inguinal region since fourteen years. Clinically it was considered as tuberculous lymphadenitis. Lymph node biopsy was performed and histopathologically it was diagnosed as atypical palisaded myofibroblastoma of lymph node.

INTRODUCTION
Palisaded myofibroblastoma is a benign mesenchymal lymph node tumor characterized by palisaded spindle cells, stellate deposits of collagen (amianthoid fibers) and hemorrhages, first reported simultaneously by Weiss et al[1] and Suster and Rosai[2] in 1989 and described it as a distinctive benign spindle cell tumor, arising exclusively from the lymph nodes. Men are more commonly affected than women with an age predilection between 19 to 67 years, 6th decade being more common age group [1, 2]. Though inguinal area is a common site, in rare cases it was even reported in cervical [3], submandibular [4] and mediastinal lymph nodes. In most of the cases the behavior is completely benign except a single inguinal case which was reported with local recurrence after 9 yrs [5].

CASE REPORT
A 60 years old female presented with the history of lump in the right groin for the last fourteen years, which was gradually increasing in size. Initially it was painless and for the past four months it was associated with pain and rapid increase in size. On examination, there was an ovoid, nodular painful and tender lump of 5x3 cms located in the right groin below the inguinal ligament. Skin over the swelling was stretched but there was no infiltration. Preoperatively, other laboratory tests were within normal limits except for mild anemia of normocytic normochromic type. With a clinical the diagnosis of tuberculous lymphadenitis, lymph node biopsy was performed.

PATHOLOGICAL FINDINGS
MACROSCOPY
The lymph node was grey-brown, congested and encapsulated with perinodal adipose tissue measuring 5.0X3.0X2.0 cms and cut-surface was grey-white, solid and multilobulated with focal areas of hemorrhages (Figure 1).

Figure 1
Fig.1 – Cut-surface of the lymph node - grey-white, solid, multilobulated with focal areas of hemorrhages.

MICROSCOPY
Sections examined from different areas of excised lesional mass revealed the histology of lymph node with well-delineated fibrous encapsulated prominent central lesional component composed of a few reactive follicles at the
periphery and mostly replaced by criss-cross, whorly and storiform fasciculi with oval to pleomorphic, vesicular nuclei, a few atypical mitotic figures, repeated nuclear palisades, hyalinized blood vessels with thick collagenous mats (amianthoid fibers) (Figures 2-5), foci of degeneration, edema and lymphoplasmacytic collections. Considering the differential diagnosis of metastatic malignant fibrous histiocytoma, Kaposi’s Sarcoma and neurilemmoma, the paraffin blocks were subjected for histochemistry such as vangieson and masson’s trichrome and immunohistochemistry such as smooth muscle actin, vimentin, desmin, cytokeratin, factor-VIII – related antigen, S100 protein, β-1 anti trypsin and chymotrypsin. The collagen stained intensely blue with masson’s trichrome and immunohistochemistry revealed positivity for smooth muscle actin and vimentin (Figures 6 and 7) but not for desmin, S-100 protein, factor-VIII related antigen and cytokeratin. Basing on these features a diagnosis of atypical palisaded myofibroblastoma of lymph node was made.

No primary lesion elsewhere could be seen and the metastatic tumors won’t exhibit capsule unlike the primary lesion of lymph node.

Figure 2
Fig.2 – microphotograph exhibiting well-delineated fibrous encapsulated prominent central lesional component composed of a few reactive follicles at the periphery (H and E, X100).

Figure 3
Fig.3 - microphotograph exhibiting criss-cross, whorly and storiform spindle cell fasciculi (H and E, X200).

Figure 4
Fig.4 - microphotograph exhibiting hyalinized blood vessels with thick collagenous mats (amianthoid fibers) (H and E, X100)

**DISCUSSION**

Palisaded myofibroblastoma of lymph node is extremely rare, with only a few cases being reported in the literature. In 1989, Weiss et al., [1] and Suster and Rosai[2] described simultaneously, the palisaded myofibroblastoma is a distinctive benign spindle cell tumor arising exclusively from the lymph nodes and bearing an unmistakable similarity to a schwannoma. It is also known as “intranodal hemorrhagic spindle cell tumor with amianthoid fibers”. In fact, so striking is the resemblance that these lesions were originally reported as schwannoma of the lymphnode [6]. Because cells derived from smooth muscle usually contain desmin, the absence of desmin in palisaded myofibroblastoma initially suggested a cell type other than smooth muscle [1-2]. On the other hand, vascular or capsular smooth muscle cells could also give rise to the spindle cells of palisaded myofibroblastoma as evidenced by immunohistochemical positivity for smooth muscle actin, vimentin and myosin [7]. Though most patients present with a solitary, unilateral nodular mass, yet a single case of multicentric intranodal palisaded myofibroblastoma was reported in 1994 by Lioe TF et al [5]. This tumor usually occurs in the inguinal region and rarely in cervical [3] submandibular [4] and mediastinal regions. The predilection of this tumor to occur in the groin was supposed to be increased smooth muscle content in inguinal lymph nodes in contrast to lymph nodes of other areas [1].

Almost all of the cases reported in the literature have behaved in a benign fashion, with no recurrence or metastasis [1-2] except a single case which was reported with local recurrence after 9 years of excision [5]. The possibility of recurrence of the present case reported also
was intimated to the concerned for follow-up.

**CONCLUSION**

It is important to recognize that this lesion represents a primary benign, mesenchymal lesion which carries good prognosis and not a metastatic sarcoma exhibiting poor prognosis. These tumors are quite well-differentiated and have low levels of mitotic activity in contrast to the present case which is exhibiting atypical nuclear features with the presence of mitotic figures arising difficulty to differentiate from metastatic sarcomas. Moreover, sarcomas infrequently metastasize to lymph nodes, and when they do so it is usually an expression of disseminated disease and rarely an initial presentation.

This case is being reported because of its rarity, clinical, prognostic significance and to avoid misinterpretation as sarcomatous metastasis.

**References**


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