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CASE REPORT

SOLITARY PLASMACYTOMA OF CLAVICLE: A RARE CASE REPORT

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ABSTRACT

Plasmacytoma is a localized collection of malignant plasma cells. SBPs are found primarily in the axial skeleton, particularly the vertebrae, ribs, and pelvis, but may involve any bone in the body. But plasmocytoma in clavicle is very very rare. We here report a case of 50 yrs old female patient presented with swelling and pain at medial end of left clavicle, diagnosed solitary plasmacytoma of clavicle post-operatively by means of Histopathology and IHC without any bone marrow involvement of monoclonal cells, presence of M-band on serum electrophoresis, negative bone scan or any systemic features of multiple myeloma.Solitary plasmacytoma of bone is not very common. Moreover involvement of medial end of clavicle is a rare entity.

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INTRODUCTION

Plasma cell neoplasms (multiple myeloma, solitary plasmocytoma of bone and extramedullary plasmocytoma) are characterized by a monoclonal neoplastic proliferation of plasma cells. Plasmacytoma results from clonal proliferation of plasma cells that are identical to plasma cells of myeloma on both the cyotologic and immunophenotypic levels. Solitary plasmacytoma of the bone (SPB) comprises only 3–5% of all plasma cell neoplasms. The new World Health Organization (WHO) criteria (Jaffe, 2001) define solitary plasmacytoma of bone (SPB) as 'a localized bone tumor consisting of plasma cells identical to those seen in plasma cell myeloma, which appears as a solitary lytic lesion on radiological examination.' The SPB more commonly involves the axial skeleton, with an active marrow, as in vertebra, ribs, skull, pelvis, femur, clavicle and scapula relatively sparing the appendicular skeleton (Smith, 1988). Incidence in Clavicle is very rare (Küppers *et al.,* 1999) (0.05%).We here present a case of solitary plasmacytoma of clavicle in a female patient.

Case report

A 50yrs old female, housewife by occupation, presented with Swelling over the medial end of left clavicle for last 8 months and mild pain over the site for last 2 months.No suggestive h/o trauma or chronic infection like TB. The range of motion was within normal limit of left shoulder joint. Clinical examination revealed a 4×3.5 cm. globular, mildly tender, bony hard swelling over medial end of clavicle.Swelling was not attached with overlying skin or soft tissue. No palpable axillary lymph nodes. Radiographs of chest showed a lytic expansile lesion involving medial one-third of left clavicle. A plain non-contrast computed tomography (CT) scan of the neck and thorax is shows Normal CT scan of the neck and erosion of medial end of left clavicle without adjacent soft tissue density lesion. Initially FNAC was done and result was inconclusive. But later excision biopsy done and specimen sent for histopathological examination.HPE report shows sheets of immature plasmacytoid cells, admixed with a few mature plasma cells. Immunohistochemistry (IHC) showed expression of CD 138 and CD 38, and are immunonegativity for cytokeratin, CD 56 and CD 20, confirming the diagnosis to be of plasma cell neoplasm. Serum protein electrophoresis showed the evidence of monoclonal gammopathy in the IgG region. There was no Bence Jones protien in urine. Normal Bone Marrow picture, X-rays revealed no evidence of any other lytic bone lesions, the whole body bone scan was negative, and no evidence of urinary tract or respiratory tract infections. This patient was then treated with postoperative chemotherapy with thalidomide. After 5 months of treatment patient is well now.

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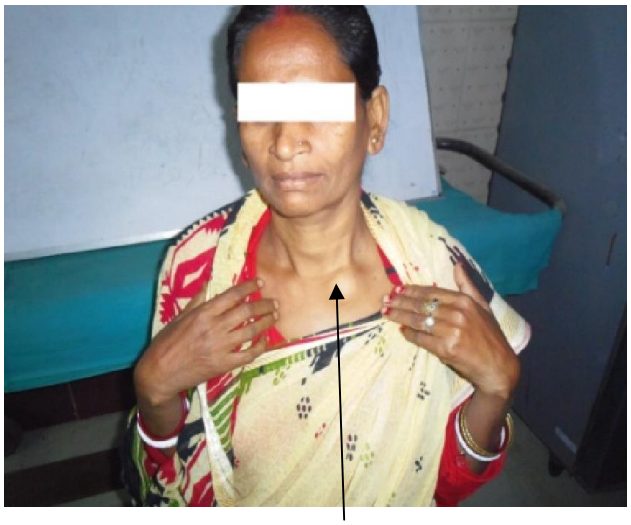
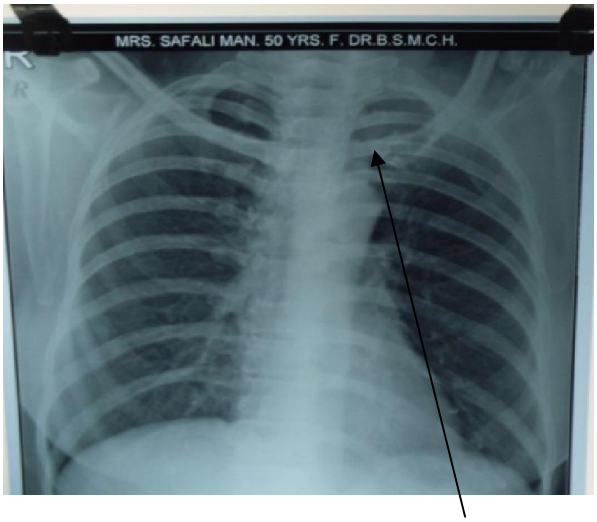


Swelling

Fig. 1.



Osteolytic lesion

Fig.2.

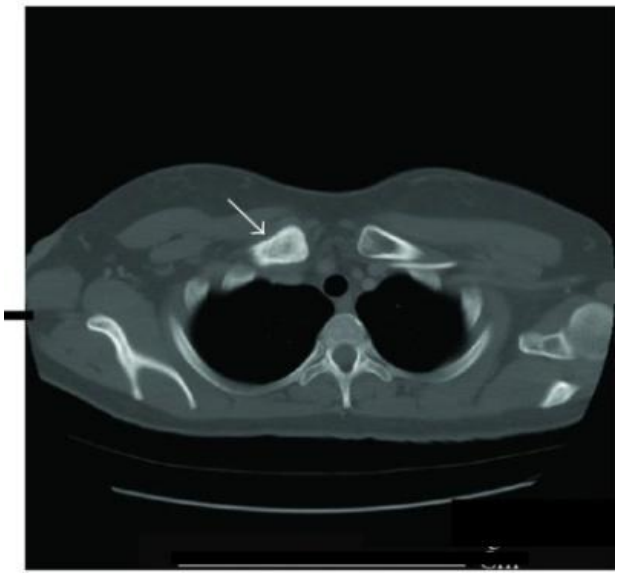


Fig. 3.

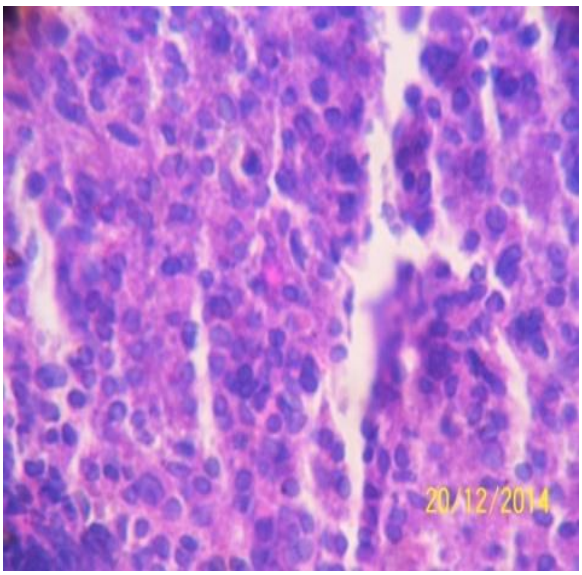


Fig.4.

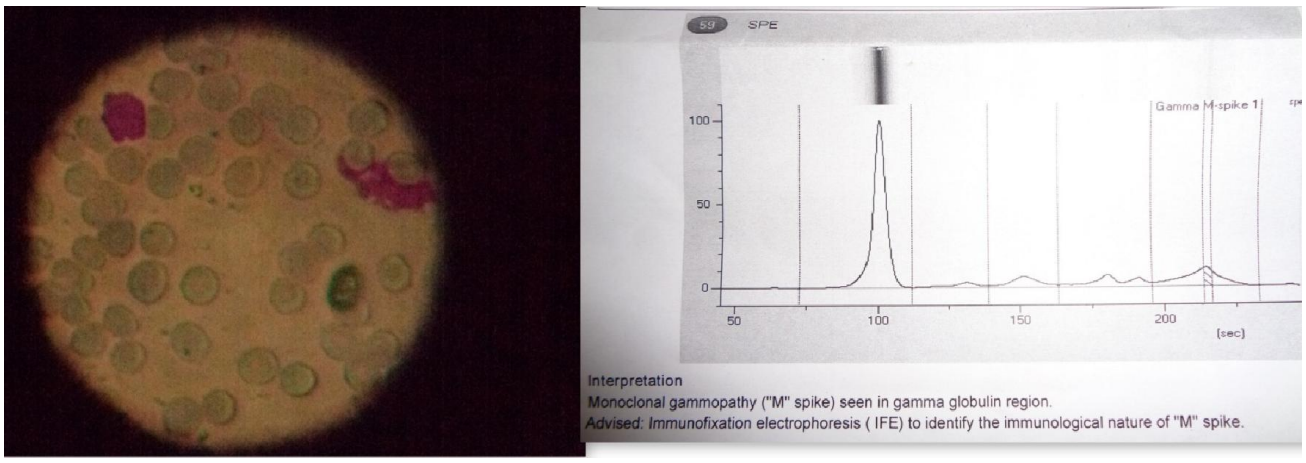


Fig.5. Bone marrow and serum protein electrophoresis

DISCUSSION

Plasmacytoma is a localized collection of malignant plasma cells. The disease can be divided into solitary plasmacytoma of the bone (SPB) and extramedullary plasmacytoma (EMP), both of which are distinct entities. An EMP, the rarer of the two, has soft tissue infiltration by clonal plasma cells without any occult or systemic myeloma. Whereas, SPB has a solitary lytic bone lesion with infiltration of monoclonal plasma cells, with absence of the same on a random marrow sampling or any evidence of systemic myeloma. Less than 5% of patients with a plasma cell dyscrasia present with a single bone (SBP) or extramedullary plasmacytoma (EMP) without evidence of systemic disease. It has been reported that skeletal plasmacytoma is known to progress more frequently to multiple myeloma than extra skeletal disease (Hughes *et al*., 2009). Bone pain is the most common complaint for patients with SPB as with multiple myeloma. Systemic problems such as weakness, weight loss, anaemia, thrombocytopenia, peripheral neuropathy, hypercalcemia, or renal failure frequently are present in multiple myeloma but in contrast these systemic findings are absent in SPB (Dimopoulos, 2000). Local radiotherapy and alternatively surgery are treatment options for adequate local control. Patient should be followed even after the local treatment of disease has been performed because approximately 50-60% of patients with SBP may progress to multiple myeloma over the period of 10-15 years.

Conclusion

We reported a case of solitary plasmacytoma of clavicle which is a rare site of SPB. Diagnosis was confirmed by post operative biopsy and histopathological examination. Other investigations were done to rule out systemic features of multiple myeloma. Patient was treated by surgical excision and post-operative chemotherapy with thalidomide. Patient is now well and is under regular follow up.

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