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Case Report

Plasmacytoma of clavicle bone: a case report

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ABSTRACT

Plasmacytoma refers to a malignant tumor composed of plasma cells, which grows within soft tissue or axial skeleton. These are identical to those in plasma cell myeloma, which appears as a solitary lytic lesion on radiological examination. Primary bone tumor of clavicle are uncommon and likely to be malignant. Systemic issues in multiple myeloma are absent in plasmacytoma which makes it a formidable diagnostic challenge. Authors report a case of sixty-two years old female with progressive swelling around medial end of right clavicle associated with pain and restriction in arm movements. X-ray revealed lytic lesion in medial one-third of clavicle. FNAB revealed small to large plasmacytoid cells. CT Angiography revealed ill-defined heterogenous soft tissue density lesion. Since the mass was near the vascular structure, adjuvant chemoradiotherapy was given. Solitary plasmacytoma of bone (SPB) of medial end of clavicle is rare. Surgery is the mainstay treatment but in inoperable cases, adjuvant therapy may be considered. SPB of clavicle is a unique surgical entity with diagnostic and management challenges.

Keywords: Plasmacytoma, Multiple myeloma, Adjuvant chemoradiotherapy

INTRODUCTION

Plasmacytoma is a malignant tumor composed of abnormal plasma cells which grows within soft tissue or within axial skeleton without systemic involvement. It comprises of three distinct groups: SPB, extramedullary plasmacytoma (EMP), systemic myeloma.

SPB is defined as "a localized tumor consisting of plasma cells identical to those seen in plasma cell myeloma". It appears as a solitary lytic lesion on radiological examination.[1] SPB accounts for <5% of plasma cell myeloma and commonly involves axial skeleton. Incidence of primary bone tumor of clavicle is very less (0.45%). It is a rare disorder similar to multiple myeloma, and consists of plasma cells restricted to single area of body.[2]

So, hereby we present a case of SPB involving clavicle, which is rare as per the disease entity and rarer because of the site involved.

CASE REPORT

A 62-year-old female presented to our hospital with 8 months history of swelling in right lower neck which was gradually progressive and was associated with pain since 3 months. Pain was non persistent and dull aching in nature and was radiating towards right shoulder and increased on exertion and relieved by medication. It was associated with difficulty in abduction of right arm beyond 90 degree.

Patient had no other constitutional symptoms. There was no any significant family history, comorbidity, drug history or genetic history.

Physical examination

Revealed a solitary lump of (5×4 cm) at medial end of right supraclavicular region which was hard, non-tender, immobile with engorged veins over skin surface and associated with restricted right upper limb movement.

Investigation

Revealed normal blood investigation, negative urinary Bence-Jones protein.

Chest X-ray (PA) revealed lytic lesion involving medial 1/3 of right clavicle associated with soft tissue density in apical region of chest.

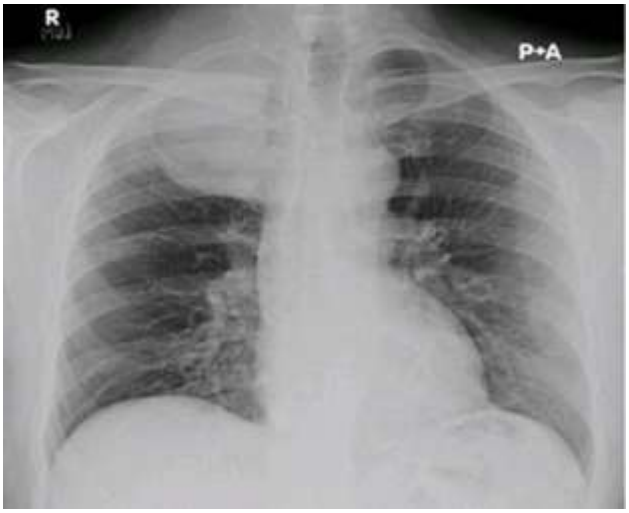

Figure 1: Radiograph revealing lytic lesion involving medial 1/3 of clavicle.

CT angiography revealed an ill-defined heterogeneously enhancing soft tissue density lesion of (64×50×51mm) in right supraclavicular region arising from medial side of right clavicle. Right external jugular vein lay in close proximity of the lesion with preserved fat plane and multiple perilesional and intralesional collaterals.

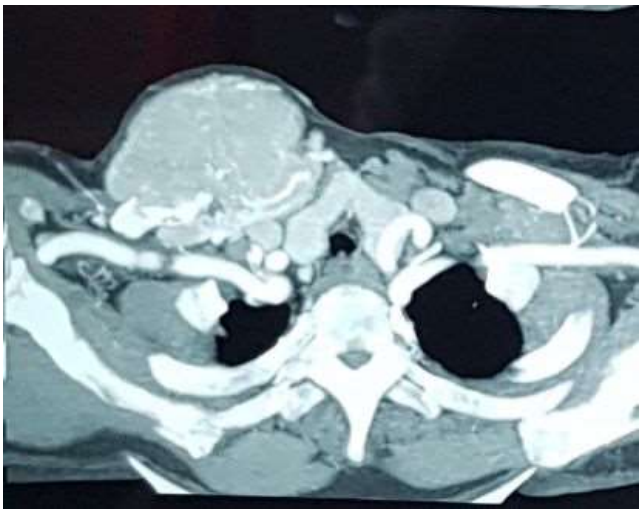

Figure 2: CT angiography revealing ill defined heterogenous lesion involving vascularity.

FNAB revealed plenty of small to large plasmacytoid cells in dispersed fashion having eccentrically placed nuclei and dispersed chromatin along with many binucleated and multinucleated cells highly suggestive of plasma cell neoplasm.

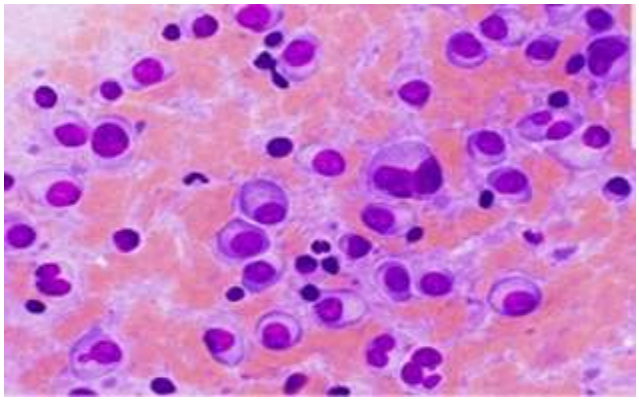

Figure 3: FNAB revealing small to large plasmacytoid cells with many binucleated and multinucleated cells.

Management

As the tumor location was near vascular structure and had well developed collaterals, complete removal of lesion was not possible due to increased risk of mortality. The patient was given option of surgery as well as adjuvant therapy but patient decided to go for adjuvant therapy, so radiotherapy and six cycles of chemotherapy consists of Cyclophosphamide, Bortezomib, Dexamethasone was given. Patient is in follow up for one year and there is no recurrence.

DISCUSSION

SPB of clavicle is rare, and most of the reported cases involve lateral end.[3-6] In our case medial end is involved. Diagnosis is based on histological evidence of a single lesion consisting of monoclonal plasma, a negative skeletal survey and no evidence of tumor in bone marrow. Bence-jones protein in plasmacytoma is negative.

Plasmacytoma exhibit monoclonal kappa or lambda light chains. Mainstay of treatment is surgical excision if tumor is operable, however in inoperable cases patient may also be given the choice for adjuvant therapy.[7]

Long term follow up is necessary because in most of patient conversion into multiple myeloma develops often 7-10 years after initial diagnosis.[8]

CONCLUSION

We reported a case of solitary plasmacytoma of clavicle which is a rare disease, presenting in an extremely rare site and was a diagnostic challenge due to similar picture to multiple myeloma. Diagnosis was confirmed by FNAB and other investigations to rule out systemic myeloma. In our case tumor was inoperable so adjuvant therapy was

given and patient is under follow up for 1 year & no recurrence noted.

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