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CASE REPORT

AN UNUSUAL PRESENTATION OF EXTRAMEDULLARY PLASMACYTOMA IN BREAST OF ADULT MALE- A RARE CASE

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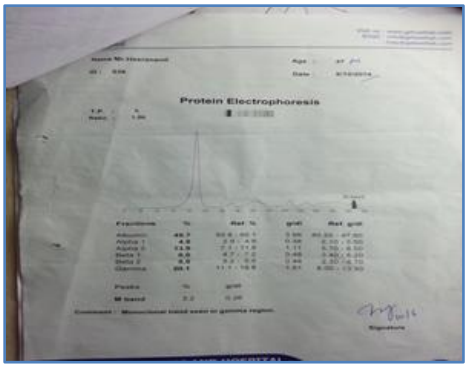
ABSTRACT: **INTRODUCTION**: Extramedullary plasmacytoma of the breast is an uncommon neoplasm, occurring either as a solitary tumour or as an evidence of disseminated multiple myeloma.[1] Plasma cells represent terminally differentiated B- cells. Their neoplasms are characterized by secretion of a single homogenous immunoglobulin product known as the monoclonal or "M" component, which can be detected by serum and urine protein electrophoresis.[2] **MATERIAL AND METHODS**: We describe here a case of breast plasmacytoma in a 56 year old male patient who was a known case of multiple myeloma.Diagnosis was made on the histopathological examination, Serum protein electrophoresis, X-ray finding and positive immunohistochemical staining with Lambda Light chain - Positive and CD138- Positive, In Pathology department of Mahatma Gandhi Medical College & Hospital, Jaipur. **DISCUSSION:** Plasmacytoma in breast is rare Extramedullary Plasmacytoma usually occur in the head and neck area in 90% of cases, for example, the upper respiratory tract, nasal cavity, paranasal sinuses, oropharynx and salivary glands.[2,3] Occasional cases of extramedullary plasmacytoma are reported in breast.[4]

CASE REPORT: A 56 year old male who was a known case of multiple myeloma presented with a mass in the right breast since 1 month.

CLINICAL PRESENTATION: Patient presented with a visible mass that is discovered during routine examination or with radiographic imaging. No history of discharge per nipple, fever or pain. Patient had taken chemotherapy for MM.

ON EXAMINATION: General examination: Normal.Systemic examination: Swelling measuring 8X7X5 cm is present in right breast. Hematological examnation: ESR= 180 mm in 1st hr. Serum Protein electrophoresis= showed the presence of a M- band. Biochemical examination: Blood urea-31mg%, S.Creatinine-1mg%, Sr.Sodium-141mMol/L, Sr.potassium-4.60mMol/L, Sr.Chloride-109mMol/L, Sr.Calcium-15Mg/dL, SGOT- 74, SGPT- 64, Sr.Total Protein-5.6gm%, A/G ratio- decreased, Blood glucose -64.



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RADIOLOGIC INVESTIGATION: USG -Right breast mass lesion. X-ray chest PA view- Right lower lobe consolidation. X-ray pelvis-Suggestive of lytic lesion of bone. X-ray skull- Normal skiagram. Mamography – Favors of benign lesion.

X-ray pelvis

X-ray skull

PATHOLOGIC FEATURES:

GROSS FEATURES: Formalin fixed MRM SPECIMEN measuring 8x7x5 CM. Axillary tail measures 7 cm in length.Skin flap measures 7.5 x4.5 cm. Nipple and areola unremarkable. On cutting a Grey brown hemorrhagic area is seen measuring 3x2 cm and Grey white area measuring 4x2 cm. No Lymph node resected.

MICROSCOPIC FEATURES:

MRM SPECIMEN: H and E stained sections shows sheets of mature and immature plasma cells having eccentrically placed atypical nuclei with abundant cytoplasm. Tumor cell showing perinuclear of Suggestive of Plasmacytoma. As patient is a known case of multiple myeloma.

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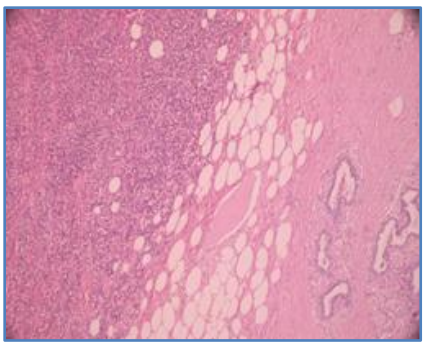
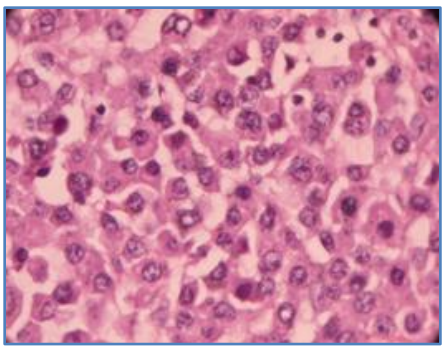
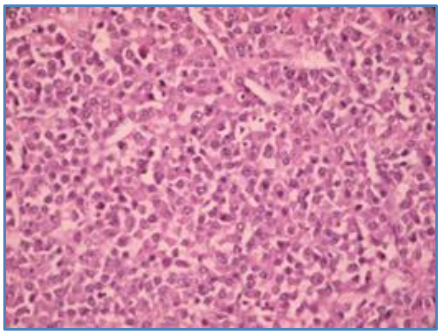


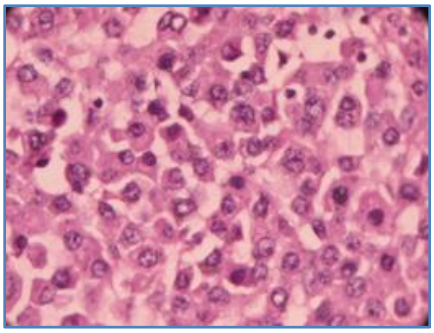
(Low power view-Plasma cell with normal Breast)



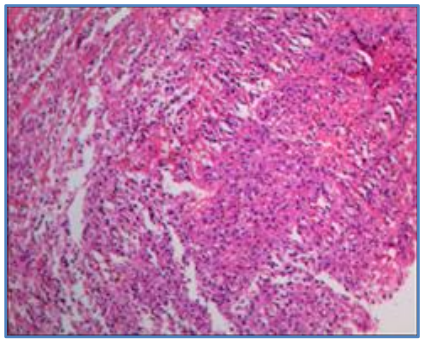
(100X view)



40X view



100X view



IMMUNOHISTOCHEMISTRY:

CD20 (Pan B cell)	Negative
Pan cytokeratin	Negative
S-100 p	Negative
KI-67	Positive 10%
Anti –Human gross cystic disease fluid protien-15	Negative
CD- 138	Positive
Kappa Light chain	Negative
Lambda Light chain	Positive

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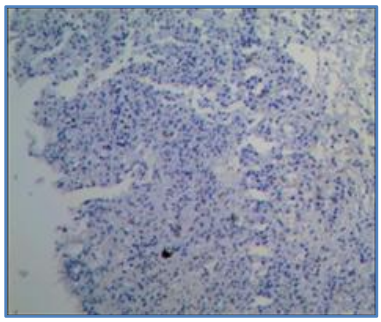
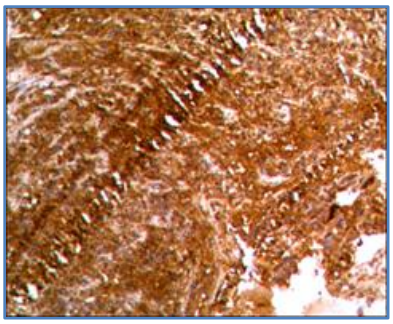
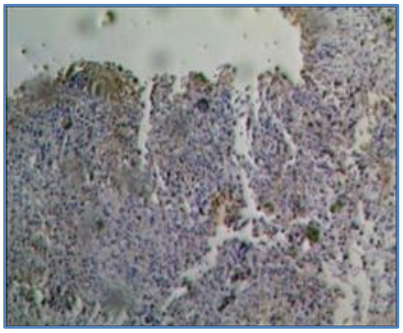
IMPERSSION: PLASMACYTOMA.



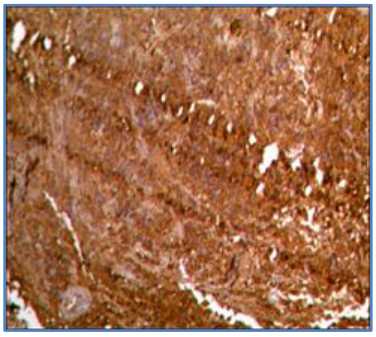
CD-20



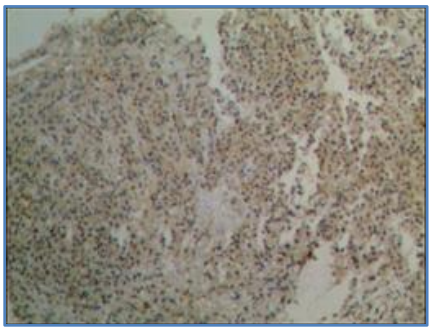
CD-138



KAPPA LIGHT CHAIN



LAMBDA LIGHT CHAIN



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DISCUSSION: Breast Plasmacytoma is a rare type of Extramedullary plasmacytoma, which can occur in the context of multiple myeloma[2]. Extramedullary plasmacytoma of the breast especially which is not associated with multiple myeloma is extremely rare.In majority of cases, patients ultimately develop evidence of multiple myeloma. Secondary involvement of plasmacytoma can occur during or after treatment of plasmacytoma can occur during or after treatment of multiple myeloma.[1] EMP usually occur in the head and neck area in 90% of cases, for example, the upper respiratory tract, nasal cavity, paranasal sinuses, oropharynx and salivary glands.[2,3] Occasional cases of extramedullary plasmacytomas are reported in breast.[4] Incidence of breast plasmacytoma is very low- only 63 cases were reported between 1928 and 2009.The reported cases were 66% unilateral and 77% associated with myeloma.[5] Breast plasmacytoma can be misdiagnosed as primary breast cancer.

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CONCLUSION: Plasmacytomas are often a late manifestation of the diseases and their appearance in a known case of multiple myeloma indicates failure of apparently successful therapy[6] Overall prognosis in primary plasmacytoma of the breast is excellent. In contrast to metastatic tumors have poor prognosis. Plasmacytomas are radiosensitive, with success rates of 79%-90% and a 10-year survival rate of 50%-100%.[7]

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