Case Report

SECONDARY EXTRAMEDULLARY PLASMACYTOMA DIAGNOSED BY FINE NEEDLE ASPIRATION CYTOLOGY

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INTRODUCTION

A plasmacytoma is a discrete, solitary mass of neoplastic monoclonal plasma cells found in either bone marrow or a soft tissue site. It can occur as a solitary lesion or could be an extramedullary presentation of multiple myeloma. A diagnosis of plasmacytoma should prompt further clinical, biochemical and radiologic investigations to determine whether the lesion is truly solitary or in fact a localized presentation of multiple myeloma [1].

The diagnosis of extramedullary plasmacytoma on Fine Needle Aspiration Cytology (FNAC) is difficult, but recently few cases have been reported. We would like to share a similar case report of secondary extramedullary (subcutaneous) plasmacytoma diagnosed by FNAC in our institute. On further investigations, it revealed systemic involvement by the disease (multiple myeloma).

CASE REPORT

A 33-year old female was referred to our hospital with a previous history of fatigue, bone pain, nausea and vomiting for which she was admitted in Patna in January'09. A Bone Marrow Aspiration carried out there was reported as? Megaloblastic Anemia/? Myelodysplasia with excess blasts. A PET scan performed in July'09 showed multiple skeletal metastases. Tumor markers (CEA, CA-125, CA-19.9) were within normal limits. In November'09, she presented to our institute with complaint of multiple subcutaneous lumps over the abdomen and right thigh. These lumps were soft, mobile, non-tender and slowly increasing in size since the past few months.

Her biochemical investigations revealed normal renal and liver Function Tests. The serum Total Protein, Albumin and Globulin were 6.9 g/dL, 3.4 g/dL and 3.5 g/dL respectively.

FNAC was performed from the subcutaneous nodules present over the anterior abdominal wall and right thigh. All the three sites showed similar cytomorphology. Smears were richly cellular, composed of sheets of dispersed pleomorphic plasmacytoid cells with occasional clustering. Cells were of medium to large size, oval in shape with dense blue cytoplasm. Nuclei were round, eccentrically placed with coarse chromatin and inconspicuous nucleoli. Binucleate and multinucleate forms were also present. Occasional mitotic figures were seen. Background was hemorrhagic. On Immunocytochemistry, the tumor cells showed focal positivity with CD138 (*Fig.*1).

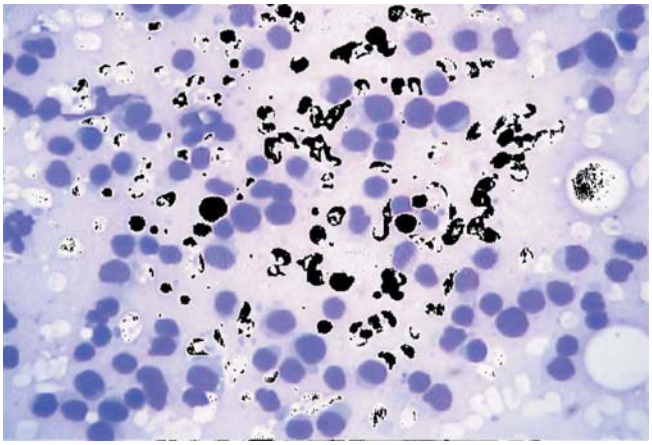
A final diagnosis of Secondary Extramedullary Plasmacytoma was made on cytology. A bone marrow aspiration (BMA), Immunoglobulin Profile and Serum Protein Electrophoresis studies were advised (*Table* 1, *Fig.*2).

SPE showed the presence of a sharp 'M spike' in the gamma globulin region (1.89 gm/dL).

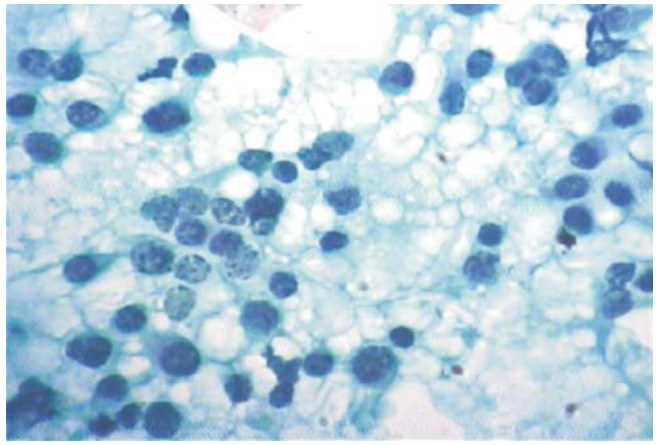
Ascitic fluid examination was given as "Positive for suspicious (plasmacytoid) cells". Bone marrow aspiration

Table 1. Immunoglobulin profile

Immunoglobulin	Result	Reference Value
IgA	13.0	85-450 mg/dL
IgG	2,333.0	800-1700 mg/dL
IgM	11.0	50-320 mg/dL

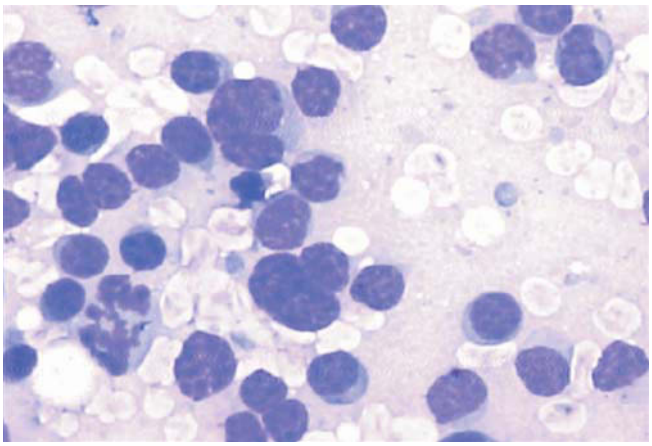


Sheets of singly dispersed plasmacytoid cells

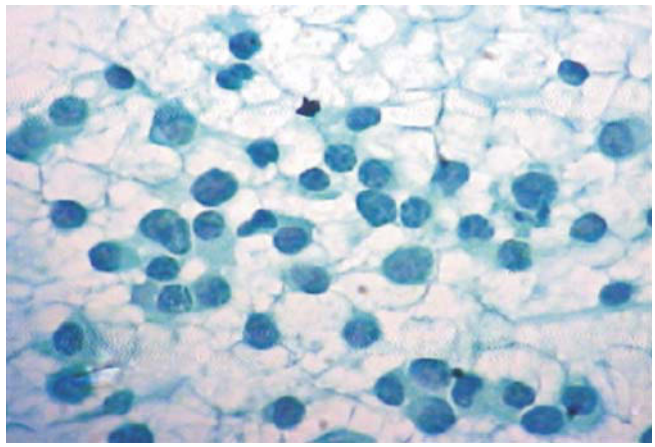


Pap

Pap Smear (1)

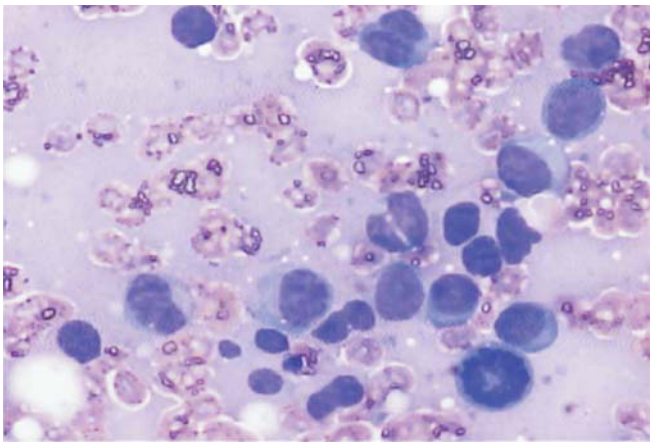


Binucleate and multinucleate forms present

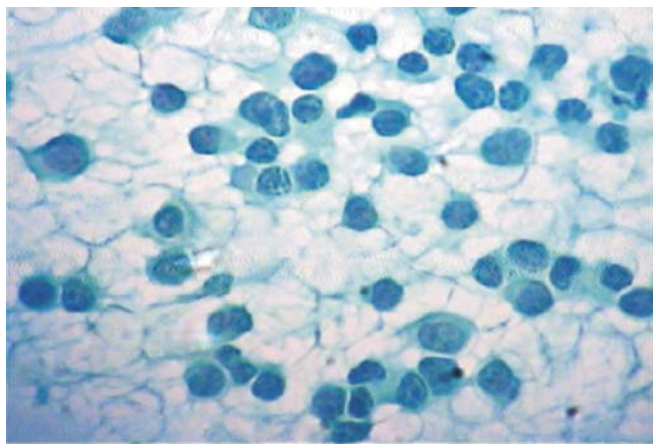


Pre

Pap Smear (2)



Mitotic figures evident



Pap

Pap Smear (3)