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Case Report

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AN OUTPATIENT CASE OF CHRONIC BACKACHE…CLL THE MASQUERADER

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ABSTRACT

Hereby we report a case of Chronic Lymphocytic Leukemia in an old age female, manifesting in one of its rarest forms of varied vertebral lesions with the only presenting complaint of the patient being Backache. The report enlightens one about the importance of suspicion in making a diagnosis of one of its rare kind. We hereby highlight the importance of evaluating a case of backache in any given patient considering the vast differentials it maypresent with along with the importance of histopathological examination.

KEYWORDS: CLL, BACKACHE, B CELL, HISTOPATHOLOGY, IHC.

INTRODUCTION

In the older age group, CLL is the most common overall haematological malignancy reported, characterised by an uncontrolled proliferation and accumulation of mature B lymphocytes in various tissues. Usually being an incidental diagnosis on peripheral smear examination, symptomatic ones usually present due to bone marrow involvement or organomegaly as in hepatosplenomegaly or rarely due to pressure symptoms due to lymph node involvement. Earlier case reports have also been published of CLL being metastatic to the leptomeninges, gastro-intestinal tract, prostrate and intervertebral disc.[1,2,3,4]

Although rare, but Richter's transformation may present with Bony CLL lesions. Such lesions have been reported in the vertebral column, skull and extremities.[5] The radiological lesions usually include osteopenia, lytic lesions, intervertebral disc infiltrations and pathological fractures.[5,6]

The authors of this rare case, report a CLL presenting solely as backache with a high index of suspicion since the beginning, and thereby discuss the lesions and hurdles in management of the case in a 85yr old female presenting to our tertiary care hospital in southern Maharashtra.

CASE REPORT

A 85 year old female from rural village of southern Maharashtra presented to our tertiary care centre in General Medicine OPD with complaints of chronic backache specifically in the interscapular region radiating downwards along the spine since the past 2-3 months. She was a known case of hypertension however non-compliant with her medications since a couple of years. She had no other complaints as in fever, malaise, breathlessness or any other.

On presentation she had a normal regular pulse and her blood pressure was 180/100 mmhg. She had a normal respiratory rate and thoracoabdominal pattern of breathing with no raised jugular venous pressure. Her saturation on room air was above 95%. However, was pale but anicteric, no pedal oedema or clubbing. Cervical group of lymph nodes, levels 2,3 and 4 were palpable, hard, non-tender. Her electrocardiogram showed left ventricular strain pattern with sinus tachycardia and no other changes. Her USG A+P also was normal with no e/o any organomegaly. Her Chest X-Ray was also normal.

With no immediate orthopaedic intervention she was admitted under general medicine department considering the hypertension, severe backache and lymphadenopathy. We had to rule out aortic dissection and had to plan for routineblood investigations and accordingly lymph nodal FNAC. She was started on beta blockers, prophylactic antibiotics, ACE inhibitors, Tramadol infusion and other analgesicsand supportive treatment.

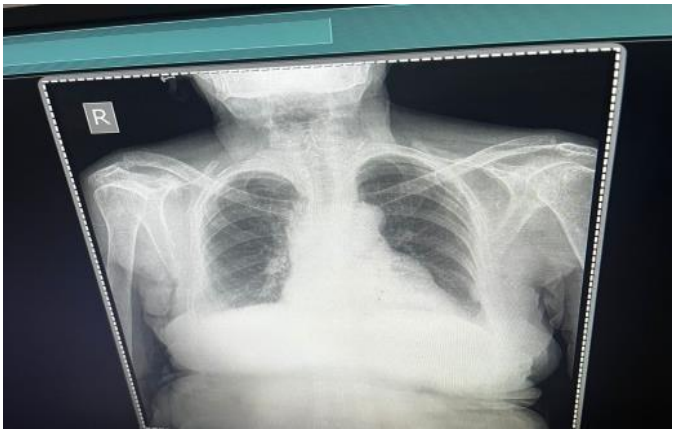


Fig. 1: CXR PA View of the patient.

Her CT Aortogram was done to rule out aortic dissection, but the aorta was found to be normal. But to our surprise, the Computed Tomography also showed diffuse osteopenia in the visualised vertebral column along with compression fractures of D4, D7 and L1, Sclerotic focus in right lateral aspect along with haemangioma in D9 body; Multiple enlarged Mesenteric Lymph Nodes were also reported. So this was the time when an index of suspicion was raised remembering the earlier published cases of haematological malignancy in old age presenting as vertebral lesions of similar type.[9,10]

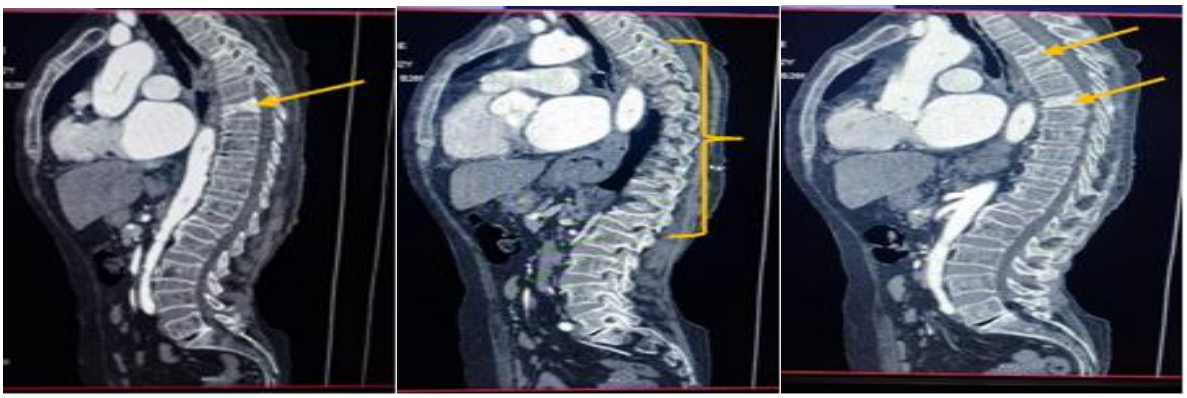
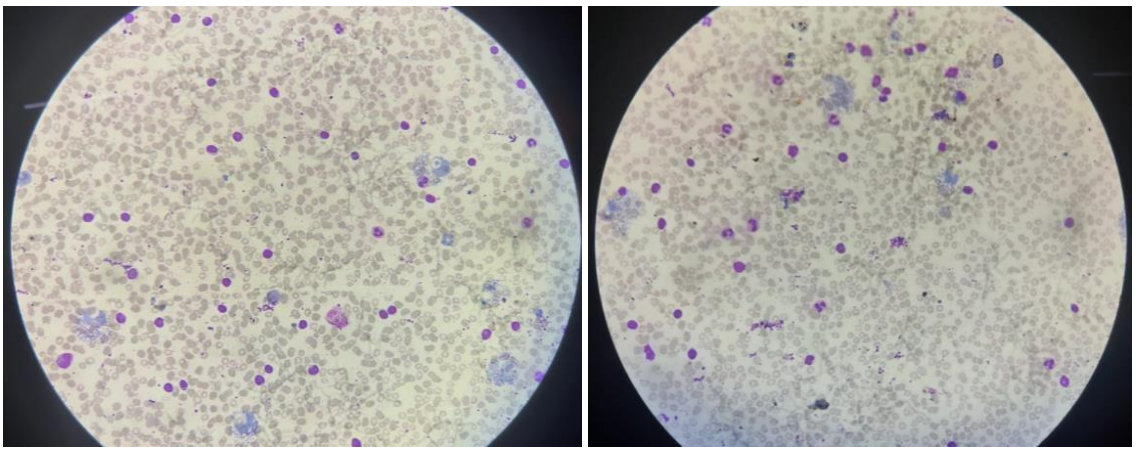


Fig. 2, 3 and 4: Sagittal/parasagittal view of vertebral column on CT Scan Showing vertebral Lesions and Compression fractures.

To add to our suspicion and unmasking the CLL presentation, the peripheral smear was reported and later confirmed the diagnosis of Chronic Lymphocytic Leukaemia. Her haemoglobin was 9.4g/dl, Total Leucocyte Counts of 38000/Cumm with 68% Lymphocytes. Peripheral smear suggestive of Microcytosis +, Hypochromia +, Anisocytosis+, Poikilocytosis+, Pencil and Tear Drop cells along with Absolute Lymphocytosis and SmudgeCells.



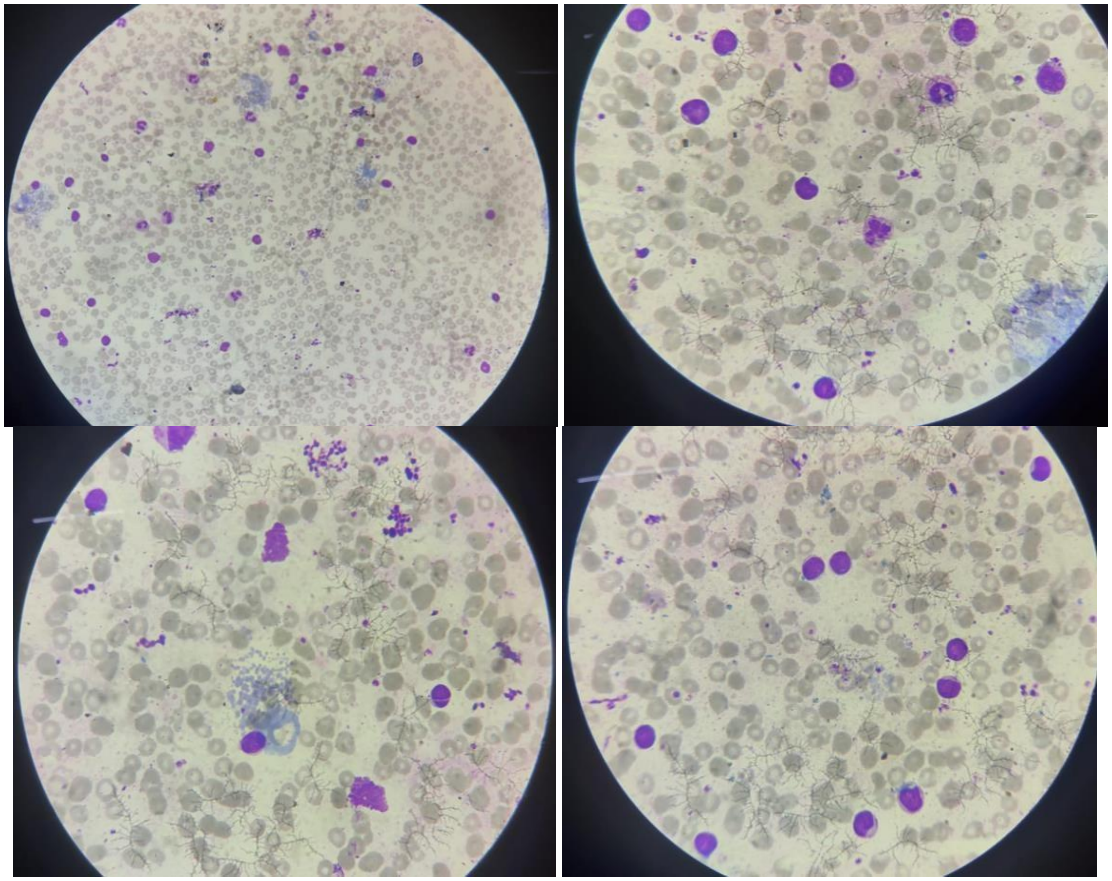


Fig. 5-10 (6): Histopathology of peripheral smear showing absolute lymphocytosis with Blasts and Atypical Lymphocytes and Snudge cells.

To confirm the vertebral lesions to be of CLL origin, CT guided biopsy was done of the respective lesions accordingly. The samples were sent for histopathology which was consistent with our suspicion and showed diffuse lymphocytic infiltration. This was further sent for immunohistochemistry, confirming the lymphocytes to be of B Cell origin and positive for CD20, CD 79a and CD5.

She was furthered referred to higher centre for oncologist reference and planned for chemoradiation. However follow up suggested that she later developed severe anaemia and an episode of community acquired pneumonia for which she is hospitalised.

DISCUSSION

The most frequently occurring form of leukaemia in the western countries, CLL, is a malignancy of the blood and bone marrow characterized by clonal proliferation and accumulation of neoplastic lymphocytes, usually of B Cell origin, in the lymph nodes, bone marrow and/or spleen,[7] often occurring during or after middle age and rarely in children. As the number of neoplastic lymphocytes increases in the blood and bone marrow, there is less room for healthy white blood cells, red blood cells, and platelets. This may lead to infection, anaemia and easy bleeding. Signs and symptoms consist of Painless swelling of lymph nodes in the neck, axilla, groin or abdomen, generalised weakness or tiredness, generalized bodyache and malaise. Easy bruising or bleeding might be seen in the form of petechial rash. Weight loss and drenching night sweats are also commonly encountered.[8] Isolated solid bony lesions are however rare.

Majumdar and singh[9] described a similar case with T9-T11 compression as a result of an extradural solid tumour composed of leukemic cells. Michalevicz[10] et al described another patient with C7 lesion presenting with paraplegia and upper limb weakness.

The management of CLL usually comprises of either watchful waiting as per the symptoms or targeted therapy such as tyrosine kinase inhibitors/monoclonal antibodies/bcl-2 inhibitors. Immunomodulating agents such as lenalidomide along with rituximab have also been used, as also Chimeric Antigen Receptor T Cell therapy (CAR T Cell Therapy).[8]

In the case reported herein by the authors, it was confirmed by histopathology and by IHC, the compressive lesions/osteopenia and vertebral fractures to be due to infiltration/metastases of lymphocytic cells of B Cell origin. The fact that the patient presented only with backache, it is hardly ever worked up on OPD basis thus highlighting the importance of a detailed work up and goal directed timely management. Early diagnosis and immediate action may reduce the morbidity associated

with the subsequent pathological fractures.

The whole and sole purpose of reporting this case was to enlighten our medical fraternity and colleagues about the varied presentations of a haematological malignancy and the importance of a high index of suspicion along with timely and appropriate investigations.

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