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CORRESPONDENCE

Acute Myelopathy as the First Manifestation in a Hitherto Undiagnosed Case of Chronic Myeloid Leukemia

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Dear Editor,

Inspite of being a myeloproliferative disorder, abnormal bleeding is one of the rare manifestations of Chronic myeloid leukemia (CML) especially during chronic phase. This abnormal bleeding can have varied symptomatology depending upon the site of bleed. Sometime it may so happen in a clinical scenario that presence of underlying CML may come to attention by the symptoms of hematoma. We report a case of acute myelopathy because of spontaneous spinal epidural hematoma (SSEH) which turned out to be because of underlying undiagnosed CML.

A 48-year-old male presented to emergency with complaints of neck pain for 15 days and weakness of upper and lower limbs with bowel and bladder incontinence for last 3 days. There was no preceding history of trauma or fever. Examination revealed flaccid quadriparesis (Frankel scale C). Systemic examination revealed splenomegaly. MRI of cervical spine was suggestive of right posterolateral epidural lesion from C3 to D2 level. This lesion was hypointense on both T1 and T2 with significant cord compression consistent with epidural hematoma (Fig. 1). Preoperative blood workup revealed anaemia and leucocytosis with normal coagulation profile (Table 1). Urgent decompressive laminectomy and evacuation of hematoma was done. However, patient did not show any improvement in myelopathy after surgery.

Complete blood picture revealed anaemia and leucocytosis (Haemoglobin 8.3 gm/dL, Total leukocyte count 101,900 cells/mm^3 and platelet count 1.75 lakh cells/mm^3). Differential leukocyte count was suggestive of left shift (Neutrophils 48%, Lymphocytes 05%, Monocyte 6%, Eosinophils 4%, Basophils 2%, Blasts 2%, Promyelocytes 8%, Myelocytes 19%, Metamyelocytes 6% and 3 nucleatedRBC/100WBC). Ultrasound abdomen confirmed splenomegaly (20 cm spleen). Bone marrow biopsy was morphologically consistent with CML-chronic phase. Qualitative RT-PCR performed on peripheral blood revealed p210 BCR-ABL transcript. Diagnosis of CML chronic phase was established and patient was started on Imatinib at 400 mg daily dose.

On post operative day 2 patient developed respiratory paralysis requiring mechanical ventilation. He succumbed to ventilator associated pneumonia on day 5 of his illness.

CML usually presents with fatigue, malaise, weight loss or abdominal lump. Bleeding and thrombosis which are major causes of morbidity and mortality in other myeloproliferative disorders, are rare in CML in chronic phase though they can be seen in accelerated or blast phase. Platelet dysfunction, acquired von Willebrand factor deficiency and hyper-leucocytosis are some of the mechanisms attributed to the increased bleeding risk [5] The exact mechanism, however remains elusive. For diagnosis, reverse transcriptase polymerase chain reaction (RT

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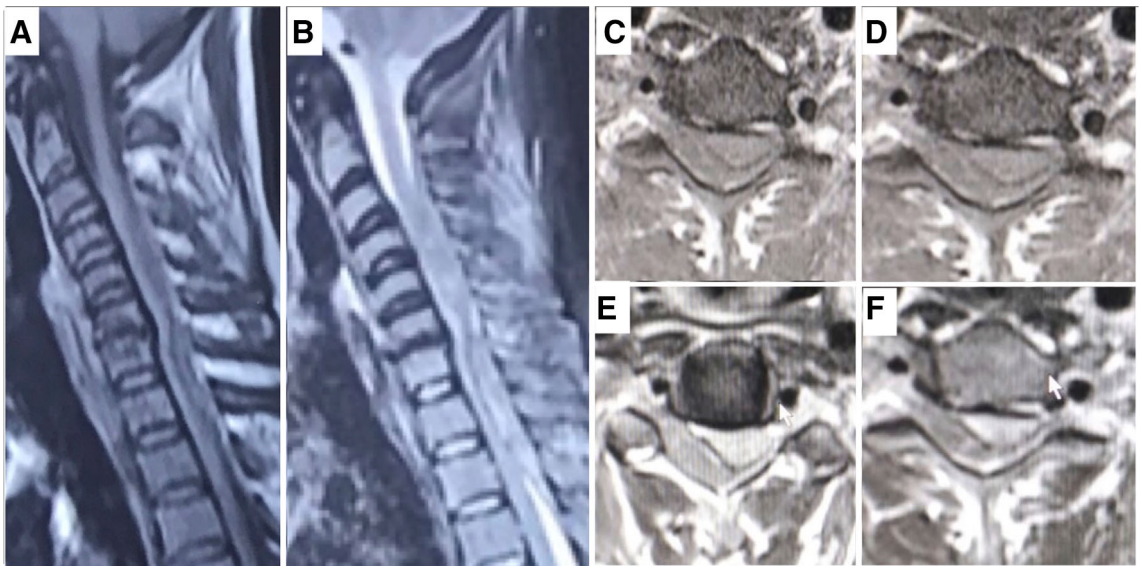

Fig. 1 **a** (T1w), **b** (T2w): MRI of cervico-dorsal spine sagittal cuts showing posterior spinal epidural lesion extending from C3 to D2 level, which is hypo-intense T1 and T2. **c**, **d** (T1w), **e**, **f** (T2w): axial cuts showing T1 and T2 hypo-intense lesion in right posterolateral epidural space with cord compression consistent with acute hematoma

Table 1 Blood parameters of patient during the hospital stay

Day	Haemoglobin (gm/dl)	Platelet count (cells/mm^3)	Total leukocyte count (cells/mm^3)	Remarks
POD 0	8.3	175,000	101,900	
POD 1	8.3	178,000	98,000	
POD 2	8.1	156,000	73,200	
POD 3	7.8	156,000	66,500	
POD 4	7.3	180,000	87,300	Imatinib 400 mg/day started
POD 5	6.3	152,000	62,000	

PCR)for BCR-ABL transcript is performed on peripheral blood.

SSEH is a rare neurosurgical condition with bleeding and hematoma in the spinal canal leading to compressive myelopathy. Common sited causes include—bleeding diathesis, vascular malformation. No cause being identified in about 30% of cases [3]. SSEH warrants emergency decompressive laminectomy and hematoma evacuation [3, 5]. Aetiology and timing of surgery play an important role in neurological recovery [3, 5]. Poor recovery in the present case can be attributed to late presentation.

To the best of our knowledge there are 2 cases of SSEH in CML reported in English literature. One patient was a diagnosed case of CML who had undergone blast transformation and presented with SSEH and another patient had SSEH as the first presentation of CML in chronic phase [1, 4]. There is a report of patient presented with compressive myleopathy due to granulocytic sarcoma in a diagnosed case of CML [2].

The diagnostic dilemma gets confusing if the first presentation of an underlying myeloproliferative disorder is spinal hematoma as happened in the present case. Therefore it is imperative for clinicians to be aware of rare presentation of this common myeloproliferative disorder. Initial clinical examination (splenomegaly) and very high TLC can point towards an abnormality even in emergency situations.

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