# Case Report

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# Uncontrolled per rectal bleeding in chronic myeloid leukaemia: a mere coincidence or a dangerous sign report of an unusual case

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#### **ABSTRACT**

Bleeding haemorrhoids present commonly to surgical outpatient departments (OPDs) and sometimes in emergency. Most often conservative management suffices but infrequently the patients can land up in emergency operation theatre for uncontrolled bleeding. Some haematological disorders can also present with rectal bleeding and amongst them Chronic myeloid leukaemia (CML), a haematological malignancy, presenting as bleeding per rectum has been not been reported so far, though instances of CML with gingival bleed, epistaxis have been reported. CML per se is known to be asymptomatic (40% cases) and bleeding is rarely seen. Here we present an interesting case of an emergency hemorrhoidal bleed that was subsequently diagnosed as CML. The patient after failed conservative management for bleeding haemorrhoids was taken up for emergency haemorrhoidectomy and again a relook under general anaesthesia in the post-operative period as he continued to ooze. The total leucocyte counts which were initially high continued to rise further and the bone marrow examination was reported as chronic myeloproliferative neoplasm and the excised mass was consistent with haemorrhoids. Rectal bleeding associated with CML is so far unreported even though bleeding is seen due to platelet dysfunction from gums and nose in chronic phases of the disease. A high index of suspicion is needed particularly with deranged haematological parameters for considering a diagnosis of these rare presentations. and anaesthesia.

Keywords: Haemorrhoids, Chronic myeloid leukaemia, Rare presentations in CML

### INTRODUCTION

Chronic myeloid leukemia (CML) accounts for 15% of adult leukemia with a median age of 67 years. Up to 40% of patients are asymptomatic at presentation and diagnosed after routine laboratory investigations. CML is clonal myeloproliferative disease and most patients who are diagnosed during chronic phase of CML are asymptomatic and they are diagnosed solely on basis of abnormal blood counts like severe leucocytosis. Atypical presentations like recurrent priapism, syncope and myocardial infarction have been reported as a complication in patients of CML. Rare associations with gastrointestinal malignancies such as rectal, liver and esophageal cancers have also been reported in patients with CML. Here we present a rare case

of an elderly male who was operated for bleeding, prolapsed hemorrhoids as an emergency procedure but the final diagnosis was CML, arrived upon on bone marrow biopsy which was done after the total leucocyte counts were abnormally high during the perioperative period.

# **CASE REPORT**

A male patient aged about 63 years, presented to the Emergency Department with a prolapsed mass and active bleeding per rectum for 2 days. He looked pale and had tachycardia and on local examination there were three prolapsed grade 4 hemorrhoids with active bleeding. Patient's hemoglobin was 6.1 gm% on presentation for which he was resuscitated and transfused overnight but he

continued to bleed. He had no co-morbidities and was also not on any medications. Finally, a decision for hemorrhoidectomy was taken after 12 hours of resuscitation as the bleeding persisted. Open hemorrhoidectomy (Milligan and Morgan's hemorrhoidectomy) was done under spinal anesthesia and rectal pack was given.

Post-surgery patient's vitals improved transiently although the rectal pack showed soakage. The packs were changed every second hourly but the soakage continued keeping us in a dilemma of either a slipped ligature or missed pathology (malignancy). One laboratory parameter we initially overlooked as an error resurfaced in our mind and that was the total leucocyte count which was to the tune of 98,000 /cumm. All the other coagulation parameters were within normal limits, so the blood sample for repeat counts and peripheral smear was sent again.

Meanwhile patient continued to ooze and again there was sudden fall in hemoglobin levels for which the patient was taken up for a relook under General anesthesia amidst fear of malignancy or slipped ligature. On examination there was no major bleeding except for some trivial ooze which was assiduously under run and a repeat transfusion was administered. The intraoperative biopsy from suspected tissue came out to be consistent with internal hemorrhoids.

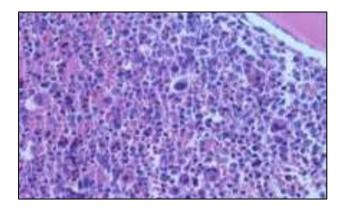


Figure 1: Trephine biopsy in CML showing suppressed erythroid islands and increased number of dwarf megakaryocytes with clustering (hematoxylin eosin ×400).

The Total leukocyte count (TLC) counts showed an increasing trend reaching up to 2.5 lakhs and the peripheral smear showed multiple blast cells suggestive of myeloproliferative disorder, so a bone marrow aspiration and bone marrow biopsy was decided upon. Finally bone marrow examination showed CML with chronic phase (Figure 1 and 2).

Patient was discharged in a hemodynamically stable state and is following up in hematoncology and is currently receiving chemotherapy.

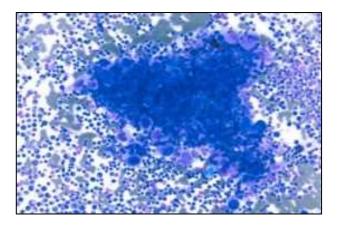


Figure 2: Bone marrow aspirate smear showing in CML demonstrating hypercellularity and myeloid hyperplasia (leishman, giemsa stain ×400).

## DISCUSSION

Haemorrhoids are one of the most common benign anorectal condition presenting as painless bleeding during defecation. Active bleeding and prolapsed haemorrhoids which are thrombosed or strangulated are considered as anorectal emergency. Choice of management depends upon degree of bleeding, grade of haemorrhoids, patient's comorbidity and patient's preference as mentioned by Lohrisiriwat et al.4 Low grade haemorrhoids (grade 1 and 2) can be treated by rubber band ligation or injection sclerotherapy. High grade haemorrhoids or bleeding prolapsed haemorrhoids require emergency operative intervention which includes open haemorrhoidectomy, doppler guided hemorrhoidal artery ligation and stapler hemorrhoidopexy.<sup>4</sup> Amongst haemorrhoidectomy is a better option in emergencies as in our case but there is always an impending risk of rebleed and then a relook surgery becomes inevitable. The incidence of delayed postoperative haemorrhage has been reported to be 0.9-10%. 12 It is also seen that there is no in post-operative difference bleeding between haemorrhoidectomy done in elective and those done on an emergency setting.

CML is myeloproliferative disorder arising from pluripotent bone marrow stem cells and accounts for 15% of adult leukaemias.<sup>1,2</sup> It is most commonly seen in elderly population at a median age of 65 years with male predisposition.<sup>5</sup> In the developed nations more than 50% of the cases are asymptomatic while in Indian scenario splenomegaly is a more common presentation and it is seen symptomatic around 80-100% of Hepatomegaly, fatigue, weakness, dragging pain, pallor as well as asymptomatic presentations are seen in 30% of cases.<sup>2,8</sup> No organomegaly is seen in 4-5% of cases. Gastrointestinal malignancies like those arising from colon, rectum, liver and oesophagus have been reported in CML. Other rare presentations like chloromas of skin and priapism have also been reported.<sup>10</sup>

Bleeding, which is not uncommon, mostly from gingiva and nose has been reported in around 20% of patients with CML during chronic phase. Platelet dysfunction is the primary cause of bleeding in patients with CML. CML mimicking as bleeding per rectum with prolapsed haemorrhoids is a rare presenting complication and finds no mention so far in literature. The prolapsed haemorrhoids may be purely coincidental but persistent bleeding which needed an emergency surgery is something which cannot be ignored. The diagnosis of CML can straight forwardly be established on basis of abnormal blood counts with severe leucocytosis supported by bone marrow aspiration and biopsy.

Here in our case as the patient presented with continuous active bleeding and after failed conservative management, the patient was taken up for Open Milligan and Morgan's haemorrhoidectomy. Further, detailed evaluation showed the case to be of secondary prolapsed haemorrhoids with persistent bleeding which could be a complication of CML. We overlooked the TLC counts initially as a laboratory error, a mistake which should not be repeated but the chances of such errors in emergency scenarios cannot be absolutely denied. Our misconception was erased with the arrival next blood report which showed grossly elevated levels of TLC. So, this reiterates the importance of high clinical suspicion of myeloproliferative disease in patients with raised TLC.

#### **CONCLUSION**

Surgical emergencies are always challenging and decision making plays an important role and is based on the initial presentation of the patient. Rectal bleeding is not an uncommon presentation but to be associated with CML is definitely new and a thing of concern. Due importance should be given to the hematological parameters even if they appear erroneous. Our patient could be diagnosed on time even after initial faux pas. So, we should always exercise high degree of suspicion in similar clinical presentations.

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