Frank hematuria as sole manifestation of acute myeloid leukemia: A case report

ML Patel, Rekha Sachan, Apul Goel

ABSTRACT

Introduction: Unexplained hematuria may be presenting feature of various systemic illnesses such as coagulation disorder, anticoagulation therapy, leukemia, disseminated intravascular coagulation and multiorgan dysfunction. Bleeding is a common presenting feature of acute leukemia. This may occur in any mucosal surface of body. Case Report: A 52-year-old male presented with complaints of low grade fever, and gross hematuria for last three days. He was diagnosed as a case of acute myeloid leukemia on the basis of bone marrow aspiration and cytochemistry. Conclusion: Presentation of acute leukemia with gross hematuria is uncommon. Gross hematuria as the sole presenting feature in such cases is unusual and only few cases have been described in literature.

Keywords: Frank hematuria, Acute myeloid leukemia, Chemotherapy, Cystoscopy.

CASE REPORT

A 52-year-old male patient was admitted in Department of Medicine, Chhatrapati Shahuji Maharaj Medical University, (Erstwhile KGMC) Lucknow in January 2011 with complaints of low grade fever, and gross hematuria for last three days. On general examination patient was febrile 100.6°F, blood pressure 130/80 mmHg, pulse
86/min, mild pallor present and no signs of dehydration was present. General examination revealed there was no lymphadenopathy, icterus, edema, hemorrhagic spot or bleeding from any other site on the body. Systemic examination was within normal limit no palpable lump was present in abdomen. There was no history of intake of medication such as anticoagulation therapy, antiplatelet drug, nonsteroidal anti-inflammatory drug or steroid in the past.

On routine investigation hemoglobin 7.8 g/dL, leukocyte count 20.6x10^3/µL, MCV 90 fL, MCH 30 pg, and platelet count was 60.0x10^3/µL. General blood picture revealed 22% blast cells with auer rods. Liver function tests and coagulation profile were normal. Serum creatinine was 1.2 mg/dL and blood urea was 24 mg/dL. Midstream urine examination showed protein in traces, 2–4 pus cells/high power field, and numerous red blood cells along with amorphous deposit of crystals. Urine culture and sensitivity were sterile, there was no evidence of glomerulonephritis. FDP and D-dimer were normal. Patient refused PCR test for detection of viral etiology. Ultrasonography of kidney and computed tomography (CT) scan of abdomen revealed no abnormality of urinary tract region. Cystoscopic examination of the bladder was normal (Figure 1). The bone marrow aspirate and cytochemistry were consistent with the diagnosis of acute myeloid leukemia of M4FAB subtype. The patient was kept on induction chemotherapy (daunorubicin 50 mg/m^2/day on day 1, 2, 3 and cytarabine 150 mg/m^2/ day, intravenous infusion for seven days) and achieved remission. Hematuria subsided within three days after treatment.

**CONCLUSION**

There are so many causes of hematuria such as viral hemorrhagic cystitis, kidney or urinary bladder malignancy and systemic illness. When patient presented with hematuria as the main symptom, acute leukemia should be kept in mind.
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ML Patel – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
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Guarantor
The corresponding author is the guarantor of submission.

Conflict of Interest
Authors declare no conflict of interest.

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