

CASE IMAGE

Urethral meatus edema with peno-scrotal edema in a patient with transfusion-dependent beta-thalassemia major

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Key Clinical Message

Urethral meatus edema is a rare finding and may infer a more severe form of volume overload. Management of patients with thalassemia vary in terms of the severity of the kidney injury due to transfusion, chronicity, and severity of volume overload.

KEYWORDS

Beta thalassemia, fluid overload, hematology, urethral meatus edema, urology

1 | CASE PRESENTATION

A 28-year-old male known to have beta thalassemia major blood transfusion-dependent, maintained on iron chelators for secondary hemochromatosis presented with bilateral lower limb edema, scrotal, and penile edema of 1 week duration and respiratory distress. He was found to have acute kidney injury and metabolic acidosis secondary to hemolysis, and uric acid nephropathy with Uric acid level of 22.3 mg/dL and LDH of 454 IU/L creatinine of 0.6 mg/dL (baseline 0.25 mg/dL). We present his case for the unusual finding of edema of the urethral meatus, as shown in [Figure 1](#), with penoscrotal edema in the setting of volume overload.

The patient was admitted to the hospital for monitoring in the intensive care unit for his acidotic state and volume status. Patient tolerated diuresis using Lasix, electrolyte derangements were corrected, he was administered allopurinol for his hyperuricemia, and oxygen was administered via nasal canula and BiPAP. He was discharged after monitoring, proper diuresis, and return of creatinine to baseline levels.

Patients with beta-thalassemia major are dependent on regular blood transfusions, especially early in life. These

patients may develop cardiomyopathy or pulmonary hypertension due to volume overload secondary to these transfusions commonly manifested by bilateral lower limb edema.¹ As the condition worsens, edema may manifest in other regions such as ascites in the abdomen and peno-scrotal edema.

It is essential in patients with kidney injury to rule out post-renal causes such as acute urinary retention as it may contribute to the volume status of the patient as reported in the literature.² Yet there are no reports on the unusual involvement of the urethral meatus in penile edema such as that seen in our patient in the setting of volume overload in beta-thalassemia major.

Management of such cases vary in terms of the severity of the kidney injury, its chronicity, and severity of volume overload. Edema of the urethral meatus may indicate a more severe form of volume overload compared to only lower extremity edema.

AUTHOR CONTRIBUTIONS

Oussama G. Nasrallah: Conceptualization; resources; writing – original draft. **Jana H. Mahdi:** Writing – original draft. **Bassel G. Bachir:** Conceptualization; writing – original draft; writing – review and editing.



FIGURE 1 Urethral meatus edema (pointed by yellow arrow) with penoscrotal edema.

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CONFLICT OF INTEREST STATEMENT

None. The authors declare no competing interests.

DATA AVAILABILITY STATEMENT

The image provided and chart data reported in the article are available upon request.

ETHICS STATEMENT

This manuscript does not contain personal and/or medical information about an identifiable individual. Consent

to write and publish this article was obtained from the patient.

CONSENT

Written informed consent was obtained from the patient for publication of this clinical image and accompanying image.

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