

A Toddler with Sudden Scrotal Swelling



A 2-year-old boy was referred to the Emergency Department with an abrupt onset of scrotal swelling and redness. The parents did not report local trauma, fever, abdominal pain, or dysuria. The patient was afebrile and well appearing. Physical examination revealed thickened and hyperemic skin of the bilateral scrotal sac extending to the groin and perianal region (**Figure 1**, A and B). Palpation evoked mild scrotal pain.

Color Doppler ultrasound scan with confirmed pronounced thickening and hypervascularity of the scrotal wall, with normal appearance of testes and epididymides and preserved blood flow (**Figure 2**).

This clinical presentation and ultrasound appearance are typical of acute idiopathic scrotal edema, a benign, self-limited disease seen mostly in school-age children (5-8 years).¹ This condition, which accounts for up to 12% of prepubertal acute scrotum presentations, with a risk of recurrence in up to 10% of cases, is characterized by the rapid development of edema confined to the skin and dartos fascia, erythema, and minimal pain, without involvement of the testes or epididymis. This swelling and erythema can spread to the inguinal and perineal regions.

Ultrasonography with Doppler screening can aid the differential diagnosis with other causes of acute scrotum, including testicular and appendix of testis torsions, epididy-

mitis, inguinal hernia, and Henoch-Schoenlein purpura, and can prevent unnecessary surgical intervention.² In particular, edematous thickening, easy compressibility of the scrotal wall, and hypervascular paratesticular scrotal soft tissues on color Doppler images (“fountain sign”) are highly suggestive of the diagnosis.^{3,4}

Although bed rest and pain relief medications with anti-inflammatory drugs are often used, symptoms tend to resolve regardless of treatment in 3-5 days, as occurred in this patient. ■

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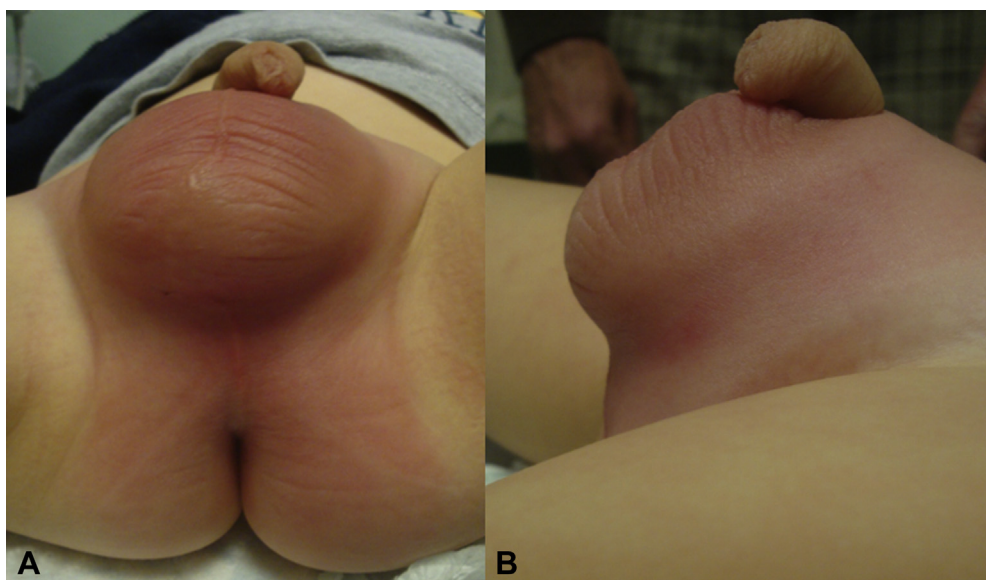


Figure 1. Bilateral acute idiopathic scrotal edema. **A**, Extension to the perineal region. **B**, Thickened and hyperemic skin of the bilateral scrotal sac.

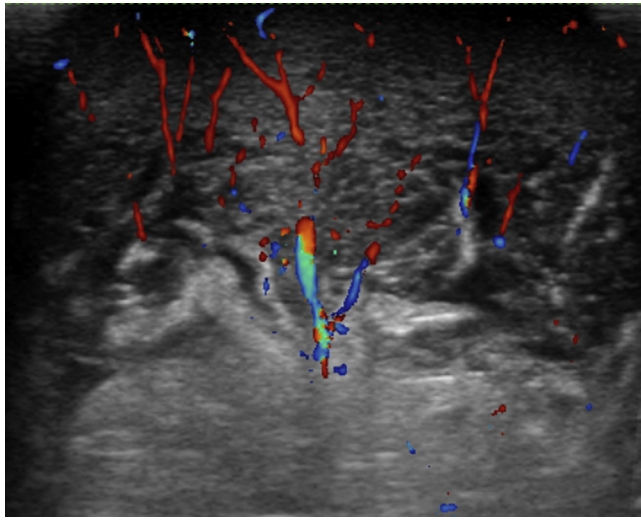


Figure 2. Bilateral edema and pronounced hypervascular paratesticular scrotal soft tissues (fountain sign).

References

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