

Acute scrotum in children

Acute scrotum

Acute painful swelling of scrotum is common surgical emergency; exploration is standard mean of management.

Acute scrotum is defined as acute painful swelling of scrotum or its contents accompanied by local signs and general symptoms which make the patient attend the hospital .

Acute scrotum is a diagnostic dilemma because its diverse etiologies and extreme tenderness over area that makes clinical examination difficult.

However, atypical presentations of testicular torsion, delayed recognition of the condition and its confusion with other causes of acute scrotum can delay diagnosis and may lead to testicular necrosis and orchidectomy.

Policy of immediate exploration of acute scrotum in children resulted in exploration of many patients with epididymoorchitis as patients with torsion of spermatic cord.

Colored Doppler scanning can play important role in differentiation in these cases

Causes

- (1) Acute epididymoorchitis.**
- (2) Torsion of testicular appendage.**
- (3) Torsion of testis (Torsion of spermatic cord).**
- (4) Obstructed inguinal hernia .**
- (6) Idiopathic scrotal edema .**
- (7) Scrotal abscess.**
- (8) Hemorrhage in testicular tumor.**

Acute scrotum in children (common causes)

- (1) Acute epididymoorchitis. 44%**
- (2) Torsion of testicular appendage. 35%**
- (3) Torsion of testis (Torsion of spermatic cord). 13%**
- (6) Idiopathic scrotal edema 8%**

diagnosis

Diagnostic work up: depends on:
**complete history, history of trauma,
duration of symptoms, affected site of
pathology.**

**physical examination •
(edema, erythema, site of tenderness,
specific local signs) .**

specific local signs

Cremasteric reflex .

Prehn sign :scrotal elevation leads to relief of pain

Blue dot sign: the ischemic testicle was visualized blue with Transillumination.

Brunzel sign: elevated horizontal position of the affected testis

Acute epididymoorchitis

Non specific: bacterial, descending infection, E coli, strept, staph.

Specific: gonorrhoea, tuberculosis, viral (mumps).

Clinically: no history of trauma, pain and swelling of the scrotum in affected side, edema, hyperemia, fever, toxemia, elevation of scrotum decreases pain(+ **Prehn sign**), + **Cremasteric reflex** is preserved. _ **Blue dot sign** _ **Brunzel sign**.

Torsion of testicular appendage

positive + history of trauma,, pain and swelling of the scrotum in affected side, edema, and hyperaemia

– **Cremasteric** reflex,

– **Prehn sign**

positive blue dot sign

– **Brunzel sign.**

Torsion of testis (Torsion of spermatic cord)

+ **positive** history of trauma, sudden severe agonizing pain in the groin and lower abdomen, oedema, hyperemia.

Attend the hospital within **hours**.

Elevation of scrotum increase pain(**Prehn sign**) _absent Cremasteric reflex. **Blue dot sign** (+ **Brunzel sign.**)

Idiopathic scrotal edema

usually **bilateral**, oedema, hyperemia.,
allergic in nature.

Cremasteric reflex is positive +

(+Prehn sign):

Elevation of scrotum decreases pain.

_ blue dot sign.

_ Brunzel sign.

management

Medical treatment :

Acute epididymoorchitis.

Idiopathic scrotal edema.

Surgical treatment :

Torsion of testicular appendage

Torsion of testis.

Obstructed inguinal hernia.

Scrotal abscess.

surgery

excision of ischemic appendix and orchiopexy is done in Torsion of testicular appendage.

Untwisting of the cord, then, according to viability of the testis in torsion of the testes.

Conclusion

History and clinical examination are considered enough data for diagnosis and management of cases of acute scrotum.

An absent Cremasteric reflex was the most sensitive physical finding for diagnosing torsion of the testes.

Conclusion

Scrotal ultrasound could confirm our diagnosis in patients with scrotal oedema and early epididymoorchitis.

When physical findings are equivocal, or the ultrasound findings are inconclusive, colored Doppler scanning is helpful and sometimes is mandatory.