

Testicular torsion

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 Publication date: February 2022. Version 3
 Review date: February 2024

Background

Testicular torsion is a surgical emergency

- The age distribution of testicular torsion is bimodal; peak incidence in the **neonatal period** and a larger peak in **puberty**. ~65 % of cases occur in boys between the ages of 12 and 18 years.
- Torsion represents the twisting of the spermatic cord resulting in venous compression; oedema of the affected testicle and cord; and ultimately testicular ischaemia. The chances of salvaging the testis are higher within the **first six hours**.
- Torsion is more likely with congenital inadequate fixation of the testis to the tunica vaginalis. The most common of these abnormalities is the 'bell clapper' deformity, which may be bilateral.
- In neonates, the tunica vaginalis is not attached to the scrotal wall, and torsion involves the whole testicle including the tunica vaginalis. Neonatal testicular torsion = prenatal, or up to 30 days after delivery. In older children the cord twists within the tunica vaginalis.
- Torsion may follow trauma.

Assessment

Symptoms	Signs
<ul style="list-style-type: none"> • Severe testicular or scrotal pain, which may radiate to the inguinal region or abdomen. • Nausea and vomiting • Episodic pain, which may indicate preceding intermittent torsion. 	<ul style="list-style-type: none"> • Tender testis • Oedema and swelling of testis • Horizontal lie of affected testis • Elevated testis • Erythema of hemiscrotum • Scrotal oedema • Absence of cremasteric reflex
Investigation:	
<ul style="list-style-type: none"> • The definitive investigation for cases of likely testicular torsion is surgical exploration, and <i>imaging should not delay this.</i> • All boys presenting with an acute scrotum should have urinalysis. • Doppler ultrasound has been found to be a useful adjunct in the evaluation of the acute scrotum where physical findings are equivocal. The presence of testicular flow does not exclude torsion. Ultrasound may also provide information on the viability of torted testes, influencing the decision regarding orchidectomy. Doppler ultrasound has a significant false negative rate, and must not delay definitive surgical exploration and de-torsion. 	

Differential diagnosis

- Torted hydatid of Morgagni
- Epididymo-orchitis
- Idiopathic scrotal oedema
- Incarcerated inguinal hernia
- Testicular trauma
- Testicular neoplasia

Management

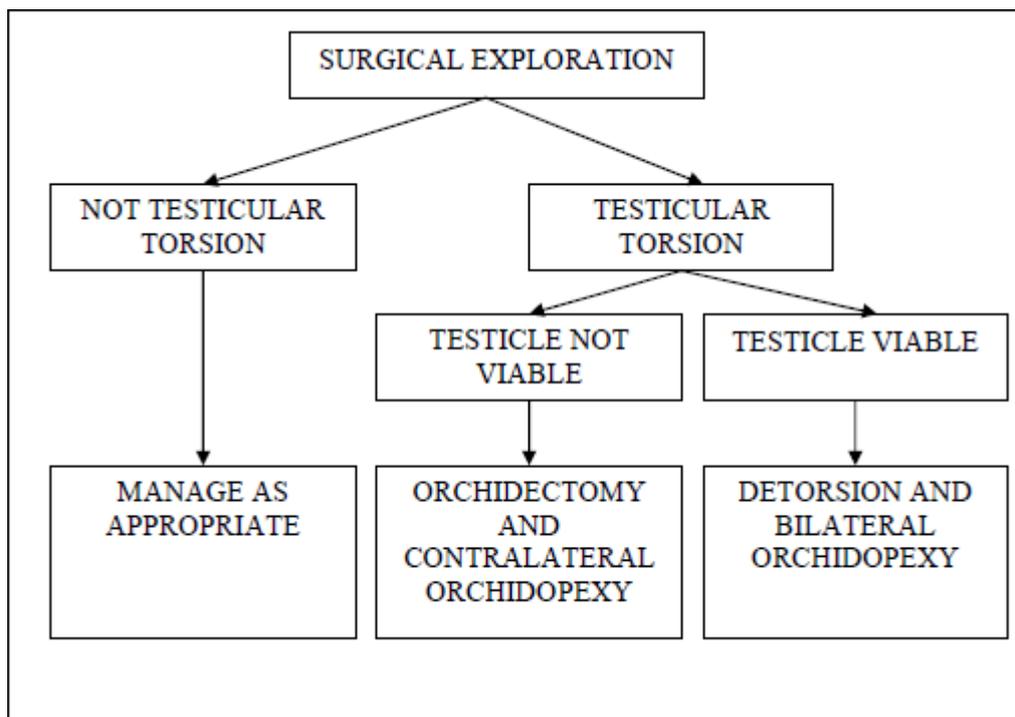
Initial:

1. Triage category: Amber
2. Ensure the child is nil by mouth
3. All cases of suspected testicular torsion should be urgently reviewed by the surgical team.
4. Analgesia as appropriate
5. Consent for surgery
 - Exploration and fixation
 - Orchidectomy if testicle not viable
 - Impaired growth of testis due to ischaemic insult, even if testicle viable
 - Bleeding
 - Infection
 - Fixation of contralateral testis

If a child or young adult presents to PRH ED with acute scrotal pain:

- PRH are unable to manage acute scrotum in young people <16 years
- Immediately ask the family to attend RACH CED with their own transport- do not wait for ambulance transfer
- There should be no delays to this transfer
- Do not delay transfer for analgesia or assessment
- Ask the child/young person to be NBM until assessment at RACH CED
- The PRH receptionist should ring RACH CED to let them know that the child/young person is en route
- On arrival at RACH CED, the surgical team should immediately be contacted
- Proceed as above

Surgical management



Original document references

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