paediatric WATCH

Lessons from the frontline

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Testicular Torsion: "Twist & Shout" for advice…

A 14 year old male presented to the local Emergency Department (ED) with a history of left sided abdominal pain. His observations were between the flags, and he was allocated a triage 4 category.

Approximately 2 hours later, he was reviewed by a junior doctor and an abdominal x-ray was ordered which showed no features of obstruction, ileus or extensive faecal loading. The patient had reported increasing abdominal pain that had commenced a few hours earlier, and was associated with two episodes of vomiting.

On assessment he had left lower quadrant tenderness, with no right iliac tenderness or guarding. A provisional diagnosis of non-specific abdominal pain was given and he was discharged with analgesia and advice to return if the pain worsened.

The following afternoon he presented to the ED of a tertiary hospital complaining of testicular pain that had commenced earlier the same day. The patient had not disclosed that he had testicular pain when he had presented to the ED the previous evening. Following examination, it was noted the scrotum was symmetrical, non-tense with left sided tenderness on palpation.

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Following a conversation with a senior doctor it was determined that torsion of the testis was unlikely and a provisional diagnosis of epididymitis was given. He was discharged with analgesia and was booked into outpatients the following day for a testicular ultrasound.

The patient was referred back to the ED the following day, with an ultrasound report confirming torsion of the left testis. The patient was transferred to theatre where a scrotal examination identified a necrotic non-viable left testis.

Investigation:

A review of SAC 1 and 2 incidents reported in IIMS between 2013-2017 demonstrated 10 incidents of delayed or missed diagnosis of testicular torsion (confirmed following exploration of the testes in theatre). Of the ten cases, six resulted in the loss of a testis. There was delay in either treatment or diagnosis in four of the cases, as a result of teams negotiating which specialty (surgery or urology) was responsible for management in patients aged between 10-14 years of age.

Lessons Learnt:

Diagnosis of testicular torsion can be difficult. The following tips can assist clinicians in making a timely diagnosis:

- Testicular torsion peaks in the newborn and pubescent periods, but can affect any male child

- All boys presenting to ED with nausea/vomiting and abdominal pain should have an assessment of the groin (for hernias) and testes completed

- Be specific in asking the patient whether he has pain in his testes

- Ultrasound is not a useful test in confirming or excluding testicular torsion. If there is a high suspicion of testicular torsion, an ultrasound SHOULD NOT be performed and the patient should be taken to theatre as soon as possible for exploration

- Discuss all patients with possible torsion with a senior doctor urgently

- Each LHD must have a local process outlining the management of testicular torsion which will include responsibility of care for patients10 - 14 years of age

- Tools such as the TWIST (Testicular Workup for Ischemia and Suspected Torsion) can be valuable in early diagnosis. [1]A paper recently published in the journal of urology concluded the TWIST had a positive predictive value of 93.5%, and a negative predictive value of 100%, when assessed by non-urologist including emergency physicians.

[1] Seth et al Diagnosing Testicular Torsion before Urological Consultation and Imaging: Validation of the TWIST Score. The Journal of Urology, 2016; Vol195(6); 1870-187

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The Paediatric Patient Safety Program works across a range of areas to improve the quality and safety of health care for children and young people in NSW.

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