

## **Paediatric Testicular Torsion - Clinical Evaluation and Role of Doppler Ultrasound**

Raed Hameed Al-Marzooq, MD, FRCSI\* Amal Ahmed Noor Al-Rayes, MD\*  
Fadi Mirza Altawash, MD\*\*

**Aim:** To investigate the symptoms and signs associated with testicular torsion and to study the role of Doppler ultrasound in the diagnosis of such a clinical entity in the pediatric age group.

**Design:** A retrospective study.

**Setting:** Salmaniya Medical Complex.

**Methods:** All patients younger than 16 years who presented with acute scrotum at Salmaniya Medical Complex between 1990 and 2000 were evaluated retrospectively. All symptoms, signs and laboratory findings related to acute scrotum were recorded. The findings of Color Doppler ultrasound were documented.

**Results:** A total of 123 patients were studied. Scrotal exploration was performed in 87 (70.7%) patients, 25 (20.3%) were found to have testicular torsion. Doppler ultrasound was performed in 41 (33.3%) patients, 11 of them underwent scrotal exploration for doubtful findings on Doppler ultrasound. Among these, testicular torsion was evident in six. The Doppler ultrasound had a sensitivity of 66.7% and a specificity of 94.3%.

**Conclusion:** Symptoms and signs that are strongly related with testicular torsion are sudden onset of persistent pain, unilateral swelling, testicular tenderness, testicular retraction, scrotal skin changes, tender and thickened spermatic cord. The presence of these symptoms and signs should alert the physician for the need of scrotal exploration. Color Doppler ultrasound is an excellent adjunctive investigation in situations where the clinical evaluation is doubtful or of low suspicion.