

## TESTICULAR TORSION EXPERIENCE IN THE UNIVERSITY OF PUERTO RICO MEDICAL CENTER: A DOMINANTLY HISPANIC POPULATION

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**Introduction and Objectives:** Testicular torsion is a surgical emergency seen in approximately 1 out of 4000 males younger than 25 years. Given that our tertiary center evaluates most young males with scrotal pain in the island, we decided to analyze the outcome of all the patients with testicular torsion treated at our institution.

**Materials and methods:** We retrospectively identified 114 patients treated for testicular torsion at our medical center between 2010 and 2013. All patients were of Hispanic ethnicity. Extravaginal testicular torsions were excluded. We evaluated the following variables: ischemia time, time to initial medical evaluation, time elapsed from presenting symptoms to treatment, degree of torsion, and surgical procedure. Presenting clinical findings were also reviewed. Chi-square analysis was performed to correlate the risk of orchiectomy with ischemic time and the degree of torsion.

**Results:** Median age was 16 years (range: 7 - 49). Ninety-eight of 114 (86%) patients were initially evaluated elsewhere, with an average transfer time of 4 hours. Of these patients, 77% (75/98) arrived with a scrotal ultrasound. Seventy-nine percent (59/75) of patients had pursued care within 12 hours from the onset of pain (mean: 4 hrs). Clinical presentation included pain, swelling, high-riding, horizontal lie, and absent cremasteric reflex, in decreasing frequency. Fifty-nine percent of patients developed pain at rest, 29% while sleeping, and 8% after trauma. The overall orchiectomy rate was 74% (83 of 112). The orchiectomy rate decreased to 50% when treated within 12 hours or less. In 85 patients we were able to correlate ischemic time with degree of torsion. Patients with ischemia time of more than 12 hours had an orchiectomy rate of 98% regardless of the number of turns ( $p < 0.001$ ). Patients with more than 720 degrees of spermatic cord torsion needed orchiectomy ( $p = 0.025$ ). The orchiectomy rate was not significantly different in patients with 720 degrees or less ( $p = 0.320$ ).

**Conclusions:** This study confirms that ischemia time is an important independent factor. Twelve hours or more, regardless of degrees of testicular torsion, suggests a poor outcome. Our study revealed that having more than 720 degrees of spermatic cord torsion is a bad prognostic factor. Social education, prompt recognition and fewer delays in medical management with immediate urological consultation or transfer to our tertiary center are needed to improve testicular torsion treatment outcomes in our population.