

Combined Orchiectomy and Prosthetic Exchange: Surgical Technique

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Introduction and Objective

Historically, placement of testicular implant during orchiectomy for torsion is not recommended despite success during orchiectomy for cancer. We present our surgical technique for combined orchiectomy and prosthetic exchange (COPE) in an adolescent with torsion.

Methods

A 16-year old presented with a 6 day history of abdominal pain and diagnosis of gastroenteritis elsewhere. He subsequently developed scrotal erythema and edema and ultrasound confirmed testicular torsion with necrosis. He was offered orchiectomy, contralateral orchiopexy, and simultaneous prosthesis. The patient received peri-operative vancomycin and gentamicin. The torsed hemiscrotum was entered through a midline incision and the testicle was detorsed. After contralateral orchiopexy, orchiectomy of the torsed testicle was performed with preservation of the tunica vaginalis. The spermatic cord was identified intravaginally and ligated using 4-0 polyglactin. Two 3-0 polypropylene sutures were placed at the proximal spermatic cord stump and tagged. Three individual 4-0 PDS sutures were preplaced in the superior, middle and inferior portions of the tunica vaginalis for later reapproximation. A large (20 ml capacity) saline-filled, adjustable testicular prosthesis (Coloplast, Denmark) was then filled with 16 ml of saline and secured near the cord stump through the tab of the prosthetic. The preplaced tunica sutures wrapped the prosthesis within the tunica. Finally, a 4-0 polyethylene terephthalate suture secured the most dependent portion of the tunica to scrotal dartos. After hemostasis and repeat antibiotic irrigation, the dartos fascia was closed in two layers (polyglactin) prior to subepithelial skin closure. The patient was discharged the same day with opioid pain medication and 5 day course of ciprofloxacin.

Results

Left orchiectomy, right orchiopexy, and simultaneous left prosthesis placement were successfully performed. Total operative time was 62 minutes. Estimated blood loss was 10 ml. No infectious complication occurred. At 6-week follow up, the incision was healed, bilateral cremasteric reflexes were elicited, and scrotal symmetry was evident.

Conclusions

Our initial experience with COPE for torsion demonstrates the procedure to be safe and effective. In addition to well-documented body self-esteem advantages of prosthetic placement, advantages of COPE potentially include obviating the need for two anesthetics, decreasing number of days missed from school/work, and cost advantages associated with a single procedure.