

Testicular Torsion Postorchiopexy: A Case of Twisted Hammock



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We herein report an unusual case of testicular torsion a decade after orchiopexy. An occurrence of postorchiopexy testicular torsion is an exceedingly rare event, infrequently reported in literature. Previously placed anchoring sutures in the inferior pole resulted in a “hammock” testicular torsion, resulting in twisting of cord with involvement of the sutures themselves. *UROLOGY* 125: 202–204, 2019. © 2019 Elsevier Inc.

BACKGROUND

Testicular torsion occurs in 1/4000 males under the age of 25.¹ It is a urologic emergency caused by the twisting of the spermatic vessels resulting in testicular ischemia, which requires rapid evaluation and treatment.² While rare, recurrent torsion after prior fixation has been reported thus, torsion itself cannot be ruled out in patients based on history alone.²⁻⁵ Analysis of previous literature has noted complete absence of attaching adhesions to the scrotal wall or tunica vaginalis. Majority of the re-torsed testis involved simple stitching of the tunica albuginea to the tunica vaginalis with absorbable suture during the initial surgery. In fact, only 1 case report of torsion after 3 point fixation has ever been reported in literature. Per authors, the testicle remained attached at its inferior pole but had twisted about “like a hammock”.⁶

Similarly, other studies looking at recurrent torsion have focused on the type of sutures used—whether they were permanent or absorbable.^{3,4} We present a case of recurrent testicular torsion where 3 Polypropylene sutures were spaced tightly together resulting in the torsion of the testicle and dartos layers.

CASE PRESENTATION

A 22-years-old African American male presented to the Emergency Department with 3-hour history of sudden onset left scrotal pain. Patient endorsed abdominal pain with nausea, without emesis. The patient's pain was similar to that of previous left testicular torsion for which he had undergone bilateral orchiopexy 8 years prior. Patient's physical exam showed left high riding testicle in transverse lie with poor

cremasteric reflex. Ultrasound demonstrated decreased testicular flow (Fig. 1) with the cord visibly twisted more than 360° (Fig. 2). The patient was immediately taken to the operating room. A 1.5 cm incision was made over the left scrotum, and extended down through the dartos fascia until the testicle was visible. The left testicle had a dusky appearance and was noted to be more than 360° rotated clockwise, along with the dartos muscle (Fig. 3). Three separate anchoring 5-0 Prolene stitches were noted to be more tightly spaced than usual on the inferior pole of the testicle, and appeared to be twisted about “like a hammock” (9) (Illustration). The previously placed permanent sutures were easily identified during scrotal exploration, and found to be loosely attached to the innermost layer of the tunica albuginea. There was minimal scar formation between the testes, and the surrounding tissues. The spermatic cord was untwisted with return of blood flow. A 3-point orchiopexy with 4-0 Prolene suture was performed. The same incision was made in the right scrotum, revealing a normal right testicle. Two additional 4-0 Prolene sutures were used to fixate the testicle to the dartos layer in addition to the 3 placed previously.

DISCUSSION

Recurrent torsion after previous orchiopexy is an immensely rare finding. Techniques of fixation have changed over the years, from using an inguinal to scrotal approach, from single point fixation to a 3-point fixation, and from using absorbable to nonabsorbable sutures.^{3,7} Sells et al in 2002 looked at the 20 past published cases of recurrent torsions and attributed the higher incidence of recurrent torsion to absorbable sutures being used during that time.²

As a counter to the previous point, Dr. Kaplan argues that the area of scar formation between the testes and the dartos muscle is of more importance than the choice of suture material.⁸ In our patient, the likely cause of recurrent torsion was due to the minimal scar formation between the testes, tunica albuginea, and the dartos layer due to the tightly spaced fixation. This formed a poor anchor and allowed the testes to twist within the inner

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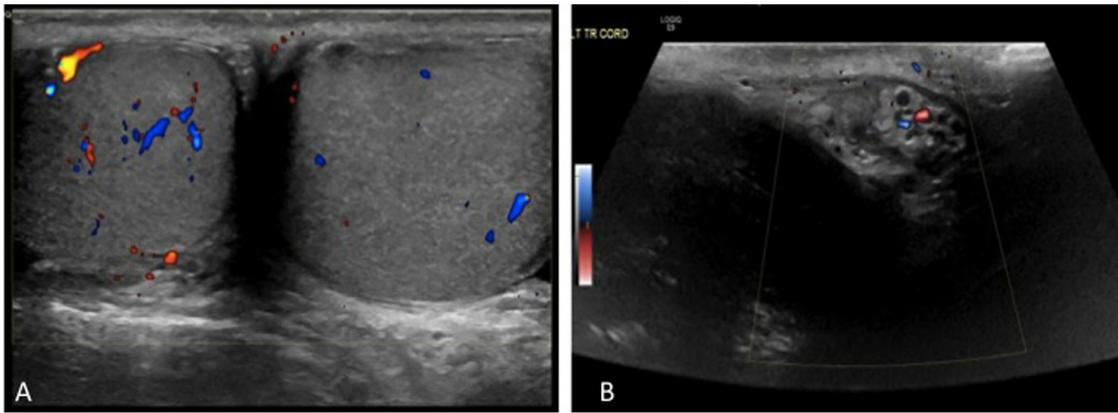


Figure 1. (A) Doppler ultrasound of the scrotum showing decreased arterial and venous flow to the left testicle. (B) Doppler ultrasound of the left showing “whirlpool sign”, consistent with left testicular torsion $>270^\circ$.

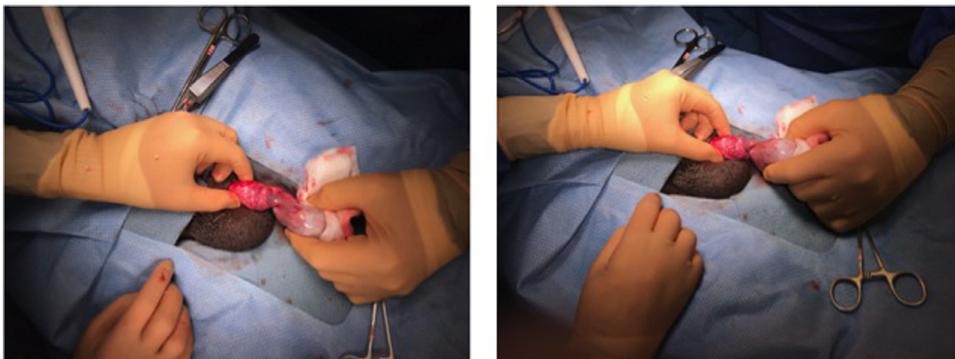


Figure 2. Intraoperative findings consistent with left testicular torsion, with identification of 360° twist around the axis.

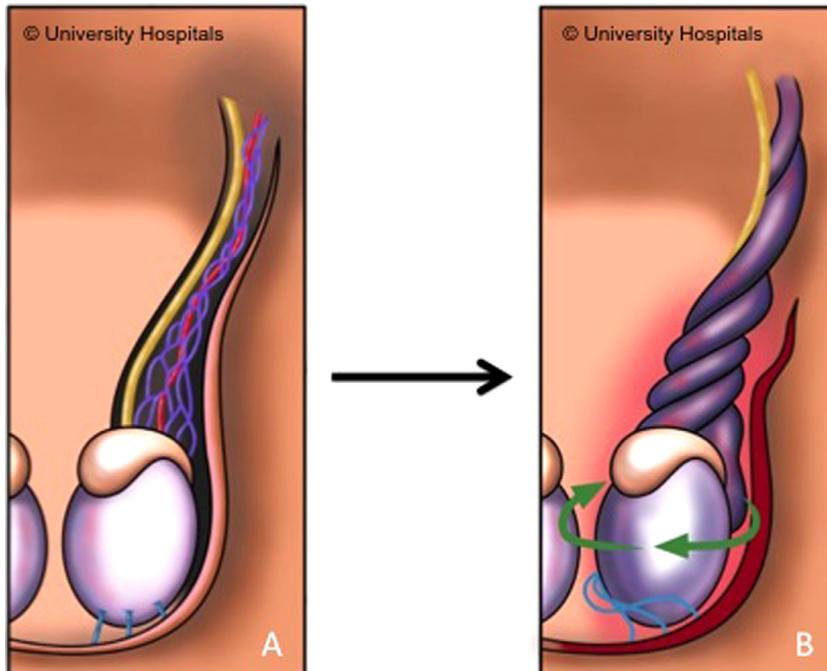


Figure 3. (A) Illustration of prior orchiopexy technique with 3-point fixation in the inferior pole of the testes. (B) “Hammock” testicular torsion, with involvement of the prolene suture within the torsion of the lower pole of the testes.

aspect of the tunica vaginalis (illustration). Current textbook recommendations suggest the placement of testicle into a dartos pouch without suture fixation, or if suture fixation is elected then a fine, nonreactive, nonabsorbable suture should be used.⁷ However, no guidance is provided on the spacing of the sutures. We recommend a widely spaced 3-point fixation that encompasses lower, medial and lateral poles of the testes. This report highlights that the risk of recurrent testicular torsion can be minimized by increasing the spacing of the fixation points during orchiopexy.⁹

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