The Western snip, stitch, and tug hydrocelectomy: How I do it

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Abstract

Introduction: Adult idiopathic hydrocele is a common benign disorder that merits surgical correction when symptomatic. The most popular techniques for repair are plication (Lord’s procedure) or excision and eversion of the tunica vaginalis (Jaboulay procedure). Established complications from these traditional repairs include hematoma, recurrence, and infection. These procedures are performed through a scrotal incision. We describe a novel technique of hydrocele repair with gubernaculum preservation through a subinguinal incision.

Methods: The novel technique is described in detail. A retrospective review was performed of those patients treated by a single surgeon with the subinguinal technique. Demographic information, indication for treatment, success rate, and details regarding complications were collected.

Results: We term the technique the “Snip, Stitch & Tug” repair. Through a small subinguinal incision, the tunica is everted posterior to the spermatic cord and testis without resection of the hydrocele sac or division of the gubernaculum. Twelve patients with postoperative followup were identified. Eleven patients (92%) treated with the novel technique were cured. There was only one complication (superficial wound infection) recorded after this technique.

Conclusions: Idiopathic hydrocele repair with gubernaculum preservation can be easily and safely performed through a small subinguinal incision.

Introduction

Idiopathic hydrocele is a common cause of increased scrotal size in adult males. Despite being a benign condition, patients often seek treatment due to local discomfort, cosmetic appearance, and limitations with intercourse and physical activity. The mainstay of treatment continues to be traditional repairs via a scrotal incision, such as the Jaboulay technique or Lord’s procedure.2

There are multiple known complications following scrotal surgery for hydroceles, including infection, abscess formation, hematoma, orchalgia, and treatment failures.3

A total of 13 hydroceles in 12 patients were treated using the novel technique. Indications for surgery included pain/
Hydrocelectomy discomfort (n=7) and cosmesis (n=5). Mean operating room time was 35 minutes (range 23–57 min) for the procedure. All patients were followed up in the outpatient clinic at 3–5 weeks (Fig. 7) and again at three months. One patient developed a superficial wound infection (Clavien Grade II) and one patient demonstrated some fluid accumulation (Clavien Grade I) that did not require further intervention. No patients experienced a scrotal hematoma. Importantly, there was a complete absence of scrotal edema and wound discharge in all patients. As well, none of the 12 patients required repeat hydrocelectomy.

Discussion

Hydrocelectomy is a commonly performed urologic procedure and is typically performed via a trans-scrotal approach. Trans-scrotal repairs have been widely accepted as the standard of care. Despite this, large series have identified a 20% complication rate—including abscess/infection, hematoma, and recurrence of hydrocele—in the management of this benign condition. Anecdotally, these procedures are commonly associated with weeks to months of persistent scrotal swelling and serous incisional drainage.

Other, minimally invasive approaches to hydrocele management have been described. Aspiration and sclerotherapy seems to have minimal complications, but limited efficacy (~75% success rate). Other small incision techniques tend to use a trans-scrotal approach and be susceptible to scrotal complications (scrotal edema, scrotal hardness, wound infection, hematoma).

We are pleased to report our initial experience with a novel, minimally invasive technique. By using a 2–3 cm
subinguinal incision, hydroceles can be managed without a scrotal incision and without extensive tissue dissection. As a consequence, incisional drainage and scrotal swelling, normally associated with the trans-scrotal approach, can be avoided. We also believe that the minimal dissection associated with this technique was responsible for the low complication rate in our small series. Furthermore, unlike other novel minimally invasive techniques, the “Snip, Stitch & Tug” technique is easy to perform, requires no special equipment, and can be performed in a rapid, safe manner. While replication of our findings is needed prior to wide adoption of this technique, our data support that this is a simple, practical, and safe approach to hydrocelectomy.

The “Snip, Stitch & Tug” hydrocelectomy is associated with a small incision, minimal swelling, and a low complication/recurrence rate.

**References**


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