TUNICAL VAGINALIS EXCISION: THE HYDROCELECTOMY TECHNIQUE NOT TO BE FORGOTTEN

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Summary

Background: The technique of excising the hydrocele sac (tunica vaginalis) rather extensively, leaving only 1- 2 cm rim of tissue adjacent to the testis and epididymis in the treatment of hydrocele in adults is to be advocated, as it gives the same result as Jaboulay's technique. The advantage with this technique is that, it reduces the size of the remaining tissue to near normal postoperatively and no risk of strangulating the spermatic cord as it may happen in Jaboulay,s technique.

Methods: Adult male patients with different sizes of hydroceles were seen, investigated and operated with this technique in three hospitals- Muhimbili National hospital, Tumaini and MHS- Massana hospitals between January 2004 and June 2006.

Results: A total of 25 patients were operated using this technique. The age ranged between 20 - $\geq$ 60years. Most of them had right-sided idiopathic hydrocele, the technique provided excellent results in the treatment of such conditions.

Conclusion: The technique of excising the hydrocele sac (tunica vaginalis) needs to be advocated and should not be forgotten hydrocelectomy techniques.

Introduction

Benign testicular masses are one of the common diseases attended at surgical outpatient clinics and in-patients ards. Hydrocele is a collection of fluid between the layers of the tunica vaginalis. A congenital or communicating hydrocele occurs as a result of persistent patency of the processus vaginalis and a non – communicating hydrocele is classified into reactive (infection, trauma, or tumour) and non-reactive (idiopathic).[1]

The diagnosis is usually clinical and ultrasound is necessary if the testis cannot be deemed normal by physical examination. The indication for treatment include discomfort for treatment of the inciting cause and reactive hydrocele[1].

The commonly applied operative procedure is Jaboulay's technique and rarely Lord's procedure. However an alternative to the above mentioned procedures is the excision of the tunica vaginalis technique that is suitable for very large or thick walled hydroceles. It is also of advantage that it avoids the risks of strangulating the spermatic cord as it can happen in Jaboulay's procedure and cosmetically it reduces the size of tissue left behind to avoid thickening and multinodular consistency of the operated testicle.

Patients and methods

Adult males patients with different sizes of hydroceles were seen investigated and treated by the author using the tunical vaginalis excision procedure in three hospitals; Muhimbili National Hospital, Tumaini Hospital and MHS – Massana Hospitals in Dar es Salaam Tanzania. The cases were managed over a period of two years from January 2004 to December 2005.

A careful preoperative preparation and consultation with physicians and anesthesiologists was done where necessary for patients who were diabetic or hypertensive or both. Patients were given general or spinal anaesthesia depending on their preference after counseling. The perineum and genitalia were cleaned with dettol, povidone lodine or savlon antiseptic solutions and draped with sterile drapes.

The scrotum was grasped firmly with one hand and the skin was stretched over the hydrocele. An appropriate area between the vessels in the skin was chosen to make a transverse incision through all layers of the scrotum. The incision was made long enough to allow the entire contents to be delivered.

With the help of dissecting scissors, all the coverings of the hydrocele sac were cleaned until it was completely free. The sac was incised and the fluid was allowed to escape, the incision on the sac was extended until the testicle could be freely delivered. The sac was excised keeping close to the testicle and leaving about 1-2cm of the sac near the testicle.

With the help of diathermy, all the small bleeding points were secured or a fine continuous haemostatic catgut/vicryl 2/0 suture was run along the cut edge of the sac. The testicle was returned into the scrotum, the dartos muscle was approximated with continuous vicryl or catgut suture 2/0 or 3/0. This gathers the muscle together and with it the skin, obviating the need for skin sutures. A firm scrotal support was applied to minimize any subsequent swelling. Where it was difficult to stop all oozing, a drain was used, to avoid postoperative haematoma.

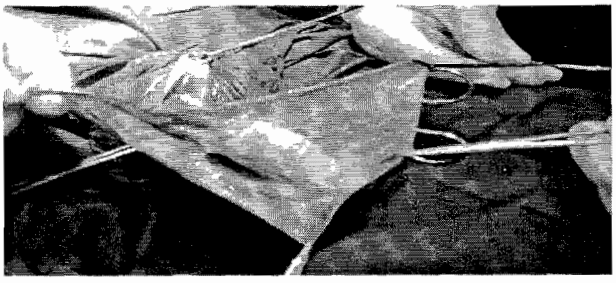

Fig. 1

Fig. 2

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Fig. 3

Results:

Table 1.

Age (yrs)	Site of hydrocele			No. of patients
	Right	Left	Both	
20 – 30	4	-	-	4
31 – 40	-	1	1	2
41 – 50	4	-	-	4
51 – 60	8	3	-	11
> 60	3	1	-	4
Total	**19**	**5**	**1**	**25**

A total of 25 patients were attended and operated by the author for the year 2004, January to December 2005. Majority were aged between 51 – 60 years and right sided hydrocele was common among these patients. Only one patients had bilateral hydrocele.

All patients underwent excision of tunica vaginalis technique and all recovered well. Postoperative scrotal support was applied to twenty two (22) patients who had huge hydroceles and only three had small hydrocele hence scrotal support was not applied. Drain was only applied to 4 (four) patients who had thickened tunical vaginalis and haemostasis appeared not well achieved.

All received analgesics, antibiotics prophylactic and stayed in hospital for three days. The technique is simple and with excellent results.

Discussion

Operative treatment of hydroceles generally requires meticulous haemostasis to avoid haematoma formation post operatively which can occur in 30% cases.[3,4] Scrotal drains are not a substitute for careful technique and need to be used only in the presence of infection. The study showed that excision of tunica vaginalis technique is as effective as Jaboulay's procedure. The advantage of using this technique is that, it is simple, avoids the danger of strangulating the spermatic cord as it can happen in Jaboulay's and Lord's procedure. Majority of surgeons apply Jaboulay's technique in treating hydroceles.

However, with this study, excision of tunica vaginalis technique is excellent in terms of results and avoids leaving behind excessive redundant tissue which will later on deform the consistency and appearance of the operated side of the testicle.

As a result of its simplicity, applicability and good results, excision of tunica vaginalis technique is hereby recorded in order to advocate its use for the treatment of these common conditions. Lord's procedure is particularly good when the sac is thin walled and requires only a small incision in the scrotal skin and in the hydrocele sac itself. However, it has a high rate of recurrence and is not commonly applied because of the size and thickness of the sac in majority of our patients.[2]

Referenced

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