Hydrocelectomy: Experience with Inguinal Approach in the Adult

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SUMMARY

The usual approach for hydrocelectomy in the adult is the scrotal route. The most troublesome problem following this method is a very discomforting scrotal swelling which creates much difficulty for the patient and the managing surgeon. This problem can be avoided by performing hydrocelectomy with a procedure using the inguinal approach in the adult. Apart from almost eliminating this post-operative problem of scrotal discomfort from marked swelling this method enables inspection, discovering of testicular malignancy and more safely taking appropriate actions on it. It also enables easy inspection, discovery and performance of appropriate actions on any co-existing inguinal hernia.

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INTRODUCTION

The usual approach for hydrocelectromy in the adult is the scrotal approach. Most recent articles still describe hydrocelectomy procedures through a scrotal incision.[1-4] It is a well-known fact that the most troublesome problem following hydrocelectomy is scrotal swelling which lasts for not less than 1 month and sometimes up to several months.[2] The swelling is usually large, sometimes larger than the original problem,[3] very discomforting and has resulted in scrotal gangrene in some patients who complied poorly to instructions or who have some conditions predisposing to easy development of gangrene.

The scrotal swelling is usually due to a combination of the usually exaggerated inflammatory oedema as a response of the very sensitive scrotal skin to incision and dissection, and accumulation of serosanguinous oozes from the hydrocelectomy site. The dependent disposition of the scrotum assists these two factors in making the scrotal swelling large, very discomforting and difficult to resolve quickly.

PROCEDURE

The hydrocele is aspirated with a needle through the scrotum to reduce its bulk to the barest minimum so that it can be delivered easily onto the inguinal wound. This aspiration is usually done during pre-operative preparations (in or outside the theatre). A small (about 4.5cm) skin incision is made over the external inguinal ring, parallel to the inguinal ligament. Dissection is carried down to the external ring and external oblique aponeurosis . A small lateralward incision is made on the external oblique aponeurosis from the lateral edge of the external ring (about 3cm). With gauze dissection the spermatic cord and medial part of the inguinal canal are exposed and are inspected for possible coexisting inguinal hernia and for the health and integrity of the canal . If there is any iota of concern about the possibility of existence of a testicular malignancy the spermatic cord is clamped here, at this stage, to avoid disseminating malignant cells; this is a real risk although manipulation of testis may be minimal before the testicular inspection stage. The hemiscrotum containing the hydrocele sac is pushed upward from below to almost evert it into the inguinal wound. The hydrocele sac is now opened, hydrocele fluid let out away from inguinal wound to avoid contamination of the wound by any seedlings of malignancy or deposits from some other lesions that may possibly be in the fluid.

Testis and other structures around it are now inspected for possible malignancy, other lesions, clues to the etiopathogenesis of the hydrocele. Barring dire findings necessitating serious actions, the spermatic cord is unclamped if it was clamped, hydrocelectomy operation is now completed with the method the surgeon deems best. The testis is returned to the hemiscrotum and the inguinal wound is closed in layers – external oblique aponeurosis, subcutaneous tissue and skin - in the usual way.

RESULT

Eleven cases have been performed with this method over a seven-month period (from July 2008 to January 2009) at The True Vine Clinic. All the cases done this way had minimal or no scrotal swelling and virtually no discomfort. The inguinal wounds, as expected, did not constitute much problem and healed easily – as in herniorrhaphy wounds.

DISCUSSION

For many years we at The True Vine Clinic have done our adult hydrocelectomies through scrotal incisions, the inguinal route being used only in children. We have found out through our recent operations that avoiding the scrotal incision almost totally eliminates the usual post-operative scrotal discomfort

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and has even more advantages. This post-operative discomfort which is so much, most times, that it necessitates "applying an ice pack to the affected area, …. in some cases, scrotal drainage tube, scrotal support, and/or heavy bandages,…"[4]). This is because avoiding scrotal incision avoids the notorious bleeding difficulties of the dartos muscle which adds very significantly to the scrotal collections even in very good hands and even with very good haemostatic measures; it also avoids the peculiar marked inflammatory response of this sensitive scrotal skin. The size of the scrotal collection from serosanguinous oozes from hydrocelectory site depends on the adopted procedure and competence of the surgeon but does not amount to significant discomfort in the absence of a scrotal wound.

Standing out as an important advantage of this method is the fact that any malignancy can safely be dealt with without any chance of making a "mistake" of cutting through the scrotum and manipulating the testis, in a case of malignancy previously not to the knowledge of the surgeon. It is also easier to deal with any associated inguinal hernia in the same sitting by extending the incision appropriately, laterally. No special instructions are required for the patient and we feel much more comfortable with hydrocelectomies now.

CONCLUSION

Routine inguinal approach for adult hydrocelectomy should be encouraged. A much larger population may be required to further assess this method and remove any doubts about its merits. The uniformly-good results obtained with this number done so far has, however, overwhelmed us in terms of how the method has given us so much relief from our past troubles. We have, therefore, decided to quickly share our experience with the surgical community so that the benefits can begin to be reaped, and we can all begin to develop it together.

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