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NO SAC NO RECURRENCE;
AN EXPERIENCE OF HYDROCELECTOMY AT A MEDICAL UNIVERSITY HOSPITAL

Habib ur Rehman Khan Toor[1], Gulshan Ali Memon[2], Ali Akbar Ghumro[3]

1. MBBS, FCPS
Assistant Professor of Surgery
People's University of Medical & Health Science for Women, Nawabshah (SBA).
2. FRCS, MS, FACS
Professor of Surgery & Dean
Faculty of Surgery & Allied Science
PUMHSW, Nawabshah (SBA).
3. MBBS, FCPS
Professor of Surgery (R)
PUMHSW, Nawabshah (SBA).

Correspondence Address:
Dr. Habib ur Rehman Khan Toor
Surgical Unit-I
Peoples University of Medical & Health Science for Women (PUMSHW) Nawabshah
dr_habibtoor@yahoo.com

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ABSTRACT… Objectives: To determine the frequency of recurrence after hydrocelectomy. **Study Design:** Descriptive. **Place & Duration:** Study was conducted at surgical department of Peoples University of Medical and Health Sciences Nawabshah from June 2012 to December 2016. **Patients & Methods:** This study was conducted at surgical unit 1 of Peoples University of medical and health sciences Nawabshah from June 2012 to December 2016. 150 male patients with primary hydrocele were included. Diagnosis of hydrocele was confirmed by clinical examination, Trans illumination test and scrotal ultrasound. After preliminary workup all patient underwent spinal anesthesia. Transverse incision made, fluid is sucked out, most of the hydrocele sac is excised and edges are sutured under run or diathermized. Post operatively 6 to 8 doses of antibiotics were given and patients were discharged after a short hospital stay. On early follow ups wound infection and hematoma were noted, managed and recorded. Up to 3 years on long follow ups were made to detect recurrence of hydrocele. Data was analyzed by statistical package of social sciences (SPSS)-24. **Results:** Study was extended for 54 months and included 150 adult male patients with primary hydrocele. Mean age was 45 years, SD± 4 and a range of 14-79 years. Mean operating time was 25 minutes, SD±5 and arrange of 15-50 minutes. Mean post hospital stay was 24 hours. Post-operative hematoma was noted in 16(10.6%). There was no any recurrence of hydrocele was found up to three years follow up. **Conclusion:** Complete removal of sac of hydrocele eliminates almost any chance of recurrence so that one can claim for "no sac no recurrence".

Key words: Hydrocele, Hydrocelectomy, Recurrent Hydrocele.

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INTRODUCTION

Hydrocele is an abnormal collection of clear fluid in tunica vaginalis of the testis and along the spermatic cord.[1] Hydrocele can also appear along the canal of nuck in females.[2] The accumulation of fluids may be due to persistent patency of processus vaginalis or imbalance of fluids absorption against production. Hydrocele is one of the commonest benign scrotal swelling affecting approximately 1% of the adult male population.[3] Various factors are responsible for hydrocele that can be classified as primary, secondary communicating and non-communicating, infectious, inflammatory, post operative, traumatic, tumor-induced, canal of Nuck, congenital, and giant.[4] Characteristically this is a painless condition but many a times it becomes a physical and psychological distress for the affected persons. A proper diagnosis and management can markedly reduce distresses for the patients. The diagnosis of hydrocele is almost clinical especially with transillumination test.[5] The use of ultra sonogram greatly helps to eliminate misdiagnosis and detect the associated tumors of the testies.[6] In the early course of the disease hydrocele remains asymptomatic and patients rarely seek surgical treatment. When a hydrocele becomes too large and symptomatic, then a treatment should be considered. There are various modalities available to treat Hydrocele including aspiration, injection sclerotherapy, lord'sprocedure, jabouly's procedure and hydrocelectomy. Hydrocelectomy is the gold standard treatment among these modalities of treatment for hydrocele as it has been shown to have higher success rates, improved outcomes and patient satisfaction.[7-9] Among these treatment modalities hydrocelectomy has a very

less recurrence rate but it still exists variably in different studies, therefore this study was conducted to determine frequency of recurrence in hydrocelectomy at our set up.

MATERIAL & METHODS

This study was conducted at surgical unit 1 of Peoples University of medical and health sciences Nawabshah from June 2012 to December 2016. 150 male patients with primary hydrocele were included. Patients with secondary hydrocele, recurrent hydrocele, associated ipsilateral inguinal hernia and severe co morbid diseases were excluded. Detailed history, clinical examination including trans- illumination test and scrotal ultrasound were the diagnostic tools. All patients were underwent baseline investigations to get fitness for anesthesia and surgery. Spinal anesthesia was used in all patients. A transverse incision was made on scrotum minimizing vessels and nerve disruption. All layers of scrotum were incised and the hydrocele sac was delivered out through the incision. Serous fluid from hydrocele sac was completely drained through a small hole. Almost the entire emptied sac was excised and the remaining small edges were either sutured continuously with absorbable suture or diathermized. Wounds were closed in layers with absorbable suture. Drain was kept in few selected cases with a large hydrocele, while a tight wrapped turban dressing was applied in rest of the cases. Post operatively most of the cases had a good analgesia, 6 to 8 doses of antibiotics and a short hospital stay. After discharged from hospital patients were advised to come for follow up on 5th, 10th, and 15thdays for identification and management of any early post operative complications like hematoma formation and wound infection. To detect any recurrence, all patients were advised to come for follow up at any time they notice scrotal swelling or at least every 6month for consecutive 3 years. Clinical examination, transillumination test and scrotal ultrasound were considered diagnostic tools to detect the recurrent hydrocele. Data was analyzed by statistical package of social sciences (SPSS)-24.

RESULTS

This study was extended for 54 months. All selected cases are male. Mean age was 45 years, SD± 4 and a range of 14-79 years. Mean operating time was 25 minutes, SD±5 and arrange of 15-50 minutes. Mean post hospital stay was 24 hours. Post operative hematoma was noted in 8(5%) patients during their hospital stay while it was found in 8(5%) cases on first follow up i-e within 5 days. Wound infection was found in 16(10.6%) cases and complete wound dehiscence was found in 1(0.6%) case. Post operative orchitis was found in 2(1.3) cases that responded well to a short course of oral ciprofloxacin. There was no any recurrence of hydrocele even after 3years follow up.

DISCUSSION

Hydrocele is one of the common benign scrotal swellings. It is caused abnormal collection of fluid in between two layers of tunica vaginalis.[10] Majority of the cases remain asymptomatic but sometime pain and psychosocial distresses insist the patients to seek medical advice. In this study all cases are male as the author could not find any women with hydrocele of canal of nuck during the study period, reflecting the rarity of the disease in females.[11] Mean age was 45 years, that is parallel to Ismail Mihmanli et al i-e 42.8 years.[3] Mean age of the patients with hydrocele is variable from study to study as sudeep et al found 33 years, Aly saber et al found 37 years and John J et al found 53years.[7,9,12] The mean operating time was 25±5 minutes that is comparable to Aly S et al 25 to 40 minutes. Mean post-operative hospital stay was 24 hours that is comparatively higher than many studies like Saber.[13] Longer post-operative hospital stay in the current study is due to patient's reluctance to get discharged early on the day of surgery because most of the patients in our set up come from less privileged areas where health care facilities are not up to mark. The common complications following hydrocelectomy are persistent scrotal swelling, inflammation and postoperative infection.[14] Post-operative hematom was found in 5% of the cases that is parallel to khanya's work (3.3%) and higher than.[7,15] Surgical site infection was found in 10% of the case that is within the ranges of some

works like khanya's(14.5%) and Ku JH(5%).[15] Recurrence is a major concern when tailoring any treatment plan for any surgical problem. For the hydrocele among various modalities of treatments including injection therapies and other less invasive techniques, complete excision of the tunica vaginalis with cauterization and over suturing of the edges offers the best results.[16] In the current study there was no any recurrence found even after 2 to 3 years follow up, reflecting the fact that there are least or no chances of recurrence after complete hydrocelectomy. This fact is also supported by the other studies like khanyas' found no recurrence after hydrocelectomy, Hirsch S et al's work shows 0.06% recurrence.[17]

CONCLUSION

Complete removal of sac of hydrocele eliminates almost any chance of recurrence so that one can claim for "no sac no recurrence".

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Habib ur Rehman Khan Toor	Author	
2	Gulshan Ali Memon	Co-Author	
3	Ali Akbar Ghumro	Co-Author	