

RESULTS OF SURGICAL MANAGEMENT OF PRIMARY VAGINAL HYDROCELE IN PATIENTS OF ALL AGES IN ASH

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ABSTRACT

Objective: To assess the results of surgical management of primary vaginal hydrocele in patients of all ages in Abbasi Shaheed Hospital.

Study Design: Prospective and descriptive study.

Setting & Duration: Surgical Unit I, Abbasi Shaheed Hospital and Karachi Medical and Dental College, Karachi from January 2003 to December 2005.

Methodology: A total of 100 patients who were diagnosed as Primary Vaginal Hydrocele and surgically treated in the department of surgery of Abbasi Shaheed Hospital, during this period were included in this study. After clinical evaluation, investigations and informed consent, all patients (n=100) were divided into three groups according to the size of Hydrocele. Group A patients (n=20) having hydrocele size <5cm, Group B patients (n=50) having hydrocele size in between 05-10 cm in diameter and Group C patients (n=30) having hydrocele size >10cm in diameter. Three surgical procedures were done in which Eversion of Sac is done in group A, Lord's Procedure is done in group B and Jaboulay's procedure was done in group C.

Results: The data collected and results were analyzed on spss version 10. Post-operatively about 18% of patients developed mild hematoma and only 04% developed wound infection. No recurrence was found in any patients in a period of two years of follow up.

Conclusion: These three surgical procedures were very safe, easy to perform and economical without any recurrence.

KEY WORDS: Primary Vaginal Hydrocele, Lord's Procedure, Jaboulay's Procedure, Eversion of Sac

INTRODUCTION

Pakistan is an Islamic country, most of the people having religious thoughts and even males are shy, having any problem in genital or scrotal area hesitate to go to a doctor until their problem worsen or get complicated.^{1,2}

The main reasons for refusing in the past were the high cost of surgery, and to some extent fear of death and impotence and or sterility that might result from surgery.³ Patients having hydrocele faces the same situation.⁴ They do not want to be examined initially but when these patients were explained the importance of exami-

nation and advantage of surgical treatment⁵, most of them agreed but some of them refused and did not return for surgery.

This study will be beneficial for our colleagues and for all patients of hydrocele, so that they can be educated to adopt easy, safe and best surgical procedures for the primary vaginal hydrocele.⁶ Hydrocele is the most common scrotal swelling and usually associated with hot climate. It usually involves middle and old ages but may occur in young and childhood. As it is painless⁷, so patients bear it for a long period until it gets complicated or attain huge size^{8,9}, and a few are associated with inguinal hernias.¹⁰

Diagnosis is usually clinical¹¹ but ultrasound of scrotum is also diagnostic.¹²⁻¹⁵ There were many non operative¹⁶⁻²² and operative treatment^{23,24} but the three surgical procedures were commonly employed. i.e. Eversion of sac, Lord's procedure^{25,26} and Jaboulay's procedure²⁷ to treat primary vaginal hydrocele.²⁸

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METHODOLOGY

This study was conducted at Surgical Unit I, Abbasi Shaheed Hospital, Karachi from January 2003 to December 2005 on 100 patients who were diagnosed as Primary Vaginal Hydrocele. These patients were first seen in surgical OPDs of ASH during this period with no other associated disease or complication. All patients having infantile hydrocele, congenital hydrocele, secondary hydrocele or primary hydrocele with complications were excluded from this study. In OPD a detail history, clinical examination and investigations (CBC, ESR, Sugar, Urea, Urine DR, X-ray chest) including ultrasound of scrotum done to confirm the diagnosis and to exclude other causes of scrotal swellings and secondary hydrocele. Informed consent was taken from all patients and proforma was filled. Patients were admitted one day before surgery according to protocol of ASH.

OPERATIVE TECHNIQUE

All procedures were done in operation theatre under general and spinal anesthesia according to the condition of the patients. Three doses of antibiotics i.e. first generation cephalosporin were given iv as prophylaxis in which first dose was given just before induction of anesthesia, 2nd dose after 6 hours and 3rd dose after 12 hours of operation. Povidone iodine and spirit were used for sterilization. After anesthesia, scrubbing and toweling incision were given in the scrotum and hydrocele sac exposed and measured by an inch tape. Then the sac was opened and hydrocele fluid drained was measured. Simple Eversion of sac was done in children and patients less than 20 years of age with hydrocele sac less than 5cm in diameter (20 patients). Lord's procedure was done in ages between 20-50 years with hydrocele sac of 05-10 cms in diameter (50 patients). Jaboulay's procedure was done in patients above 30 years with hydrocele sac more than 10cm in diameter (30 patients). A drain tube and suspensory bandage was used in medium and large sized hydroceles postoperatively (Table I).

All patients who have no complication were discharged after 48 hours of surgery and were advised to attend

Table I. Procedures Employed

Surgical Procedures	No.	%.
Eversion of sac	20	20
Lord's procedure	50	30
Jaboulay's procedure	30	50
Total	100	100

Ages	No. of Patients
10 Years	13
10-20 Years	7
Total	20
Lord's Procedure	
20-30 Years	13
30-40 Years	14
40-50 Years	23
Total	50
Jaboulay's Procedure	
30-40 Years	13
40-50 Years	15
> 50 Years	12
Total	30

Table II. Ages of patients used for procedures

SOPD for follow-up for at least six months according to the protocol given in the chart with special reference to hematoma, infection and recurrence.

During each follow up patients were looked for agonizing pain, fever, wound infection, hematoma and recurrence. Patients having no complication after discharge were allowed to join their work after 48 hours. Patients having hematoma were discharged after 5-7 days and those having wound infection were discharged after 10th day of surgery (Table II).

RESULTS

Clinical findings: Scrotal swelling and get above the

Table III. Amount of Fluid Drained

Fluid Drained (ml)	No.	%.
< 25	8	8
26-50	32	32
51-100	28	28
101-200	14	14
201-300	7	7
301-400	9	9
401-500	2	2
Total	100	100

Procedure	No. of Patients	Pain	Haematoma	Wound Infection
Eversion of sac	20	4	4	Nil
Lord's procedure	50	11	6	1
Jaboulay's procedure	30	7	8	3
Total	100	22	18	4

Table IV. Post-operative complications within one week

Complication	2 Weeks	4 Weeks	8 Weeks	24 Weeks
Pain	22 Patients	None	None	None
Haematoma	18 Patients	04 Patients	None	None
Wound Infection	04 Patients	None	None	None
Recurrence	None	None	None	None

Table V. Follow-up Results

swelling was present in all cases, transillumination test was present in all cases, cough impulse was absent and testes were not palpable separately in any case. About 13 cases of secondary hydrocele was found and three cases of testicular tumor was also found but excluded from this study (Table III).

Out of 100 patients only 22 patients had mild to moderate pain within two to three weeks of surgery which settled by giving simple analgesics like diclofenac sodium along with scrotal support (Table IV-VI).

DISCUSSION

In this study the main clinical features, diagnostic modalities and different surgical treatment were studied. According to a study the age incidence of the patients of primary vaginal hydrocele is usually middle or old age but in our study it is found that most of the patients were below forty years of age i.e. Primary vaginal hydrocele is frequently found in children and young pts and less frequently after 50 years.²⁹ The presenting features were painless scrotal swelling but in some

Table VI. Final Results

Total No. of Patients	No.	%.
Haematoma	18	18
Wound Infection	4	4
Recurrence	--	--
Success Rate		78

patients some discomfort is also noted.³⁰ In large and tense hydroceles testes was not felt separately as compared to a study in which it is present in about 5% of cases. There was no association with inguinal hernias as some authors showed 5% is associated with inguinal hernias. Most of the patients contain large amount of fluid in the hydroceles sac and fluid is mainly clear amber colored and sterile on culture.³¹

Post-operative complications after these surgical procedures were very minimal with few (18%) hematoma and (04%) wound infection is noted. No recurrence was found as compared to other methods of treatment.³² Recoveries of the patients were excellent and hospital stay was also very minimal in almost all cases except 04% of cases of infection.³ Patients returned home early and joined their daily routine after a few days of surgery.³ Different workers tried different treatment to minimize the post-op complication^{33,34} and to reduce chances of hematoma formation but after this study it is obvious that the classic technique for primary vaginal hydroceles are simple Eversion of sac alone or Eversion of sac which plicate to form a bunch as in Lord's procedure³⁵ or Eversion of sac with removal of some part of it and suturing the remaining part around the testes as in Jaboulay's procedure. The success rate after these procedures was found to be higher as compared to the other study³⁶ like aspiration or sclerotherapy^{37,38} where infection³⁹ and recurrence are common.⁴⁰

CONCLUSION

These three surgical procedures (Eversion of sac, Lord's

procedure and Jaboulay's procedure) are economical, safe and least time consuming and without any recurrence.

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