

Clinical Study and Management of Scrotal Swellings in Adults

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Abstract

Scrotal swellings are one of the commonest surgical problems. Different scrotal swellings may be present, but many a times patients hesitate to come early and may come with late complications. *Objectives of the Study:* 1. To study the etiology for different scrotal swellings. 2. To study different types and modes of clinical presentation of scrotal swellings. 3. To study the different investigations & treatment modalities for scrotal swellings & results of operations. *Materials & Methods:* Total of 50 cases clinically presenting as scrotal swelling were picked up randomly during the study. This is prospective study conducted on patients admitted with scrotal swellings of K.R Hospital attached to MMC & RI. The study was done for a period of 1 year 6 months. *Results:* Scrotal swellings formed less than 1.7% of surgical admissions. Primary vaginal hydrocele was present in 42% of patients studied, the other causes were Varicocele, epididymo orchitis, etc., and Most of the patients were in age group of 21-30 years. Most of them presented with painless scrotal swelling. *Conclusion:* Primary vaginal hydrocele constituted a major portion. Ultrasound of scrotum was helpful in confirmation of diagnosis. Jaboulay's procedure was the commonest operation done, followed by lord's plication. Amongst the various operations for hydrocele, Jaboulay's procedure was associated with the least number of complications. Testicular tumors can be curable if they come early. Testis can be saved

in torsion testis if they come within 6 hours of onset.

Keywords Primary Vaginal Hydrocele; Varicocele; Haematoma.

Introduction

Scrotal swellings are one of the commonest clinical entities one comes across in surgical practice. Hydrocele, the commonest scrotal swelling, is abnormal collection of serous fluid in the tunica vaginalis or any part of the processus vaginalis [1]. Scrotal filariasis occurs due to infection by the *W. Bancrofti*, the treatment of which is difficult. Fournier's gangrene of scrotum is a condition thought to be caused by obliterative endarteritis of scrotal vessels with super infection [2].

Finally testicular tumours, though forming only 1-2% of the malignancies in the male, are essentially curable. With the knowledge of specific tumour markers, the advances in the field of radiology and the chemotherapeutic agents, the treatment of testicular tumors has undergone a sea of change with complete remission.

Materials and Methods

This study was conducted on patient admitted to K.R.Hospital with scrotal swellings attached to MMC & RI. Total of 50 cases presenting as scrotal swelling were picked randomly for study. Each case was examined as per the proforma prepared. The relevant data from the 50 cases was tabulated in a master chart, under different headings. Cases treated were recorded accordingly and follow up was done.

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Results

The duration of symptoms ranged from as early as three hours in a case of testicular torsion to 2 years in a case of primary vaginal hydrocele.

In a majority of patients in the study, in about 86 % of the cases the cause could not be ascertained, i.e. idiopathic.

Various types of hydrocele formed the majority of the cases in this study; out of which primary vaginal hydrocele was the commonest followed by Varicocele. Epididymo- orchitis accounted for 8% of the cases. Chronic epididymo-orchitis due to tuberculosis was

seen in one. There was 1 case of testicular tumour, , underwent high orchidectomy, and was subsequently diagnosed as seminomas. There was 1 case of torsion of testis, underwent orchidectomy of the affected side.

Out of the 50 cases in this study, definitive operation was done for 45 cases. For one case testicular biopsy was done for diagnosis of infertility. 04 cases were put on medical line of management, 1 case among these were diagnosed to be secondary to tuberculosis and were put on ATT.

A total of 7 cases were done on emergency basis. There was 1 case of torsion testis, 3 cases of scrotal abscess.

Table 1: Duration of swelling

Duration	No. of Cases	Percentage
0-7 days	6	12
8-30days	4	8
1-3months	6	12
4-6months	17	34
7 months-1yr	13	26
> 1 year	04	08

Table 2: Etiological factors for scrotal swellings

Factors	No of cases	Percentage
Idiopathic	43	86
Trauma	03	06
Tuberculosis	01	02
UTI(culture positive)	03	06
Total	50	100

Table 3: Type of lesion

Diagnosis	Number of cases	Percentage
Hydrocele		
-Primary vaginal hydrocele	21	42
-Encysted hydrocele of cord	03	06
Congenital hydrocele	05	10
Epididymo-orchitis		
Acute	03	06
Chronic-tubercular	01	02
Varicocele	5	10
Epididymal cyst	04	08
Torsion of testis	01	02
Testicular tumour	01	02
Scrotal abscess	03	06
Sebaceous cyst of scrotum	01	02
Haematocele	01	02
Spermatocele	01	02
Total	50	100

Table 4: Treatment modality

Nature of Treatment	No of cases	Percentage
Surgical treatment		
Definite(operation)	45	90
Biopsy	01	02
Medical treatment	04	08
Total	50	100

Table 5: Emergency VS elective operation

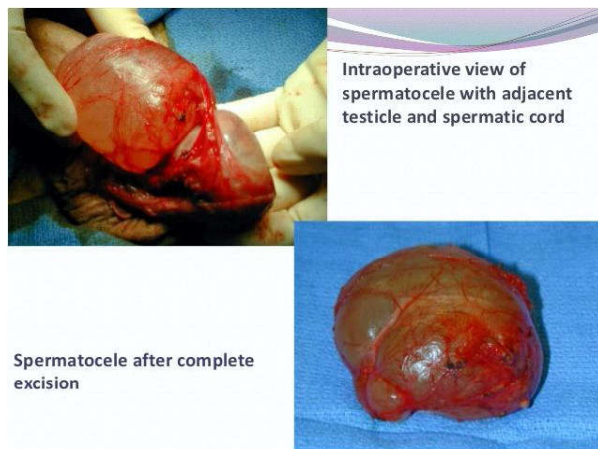
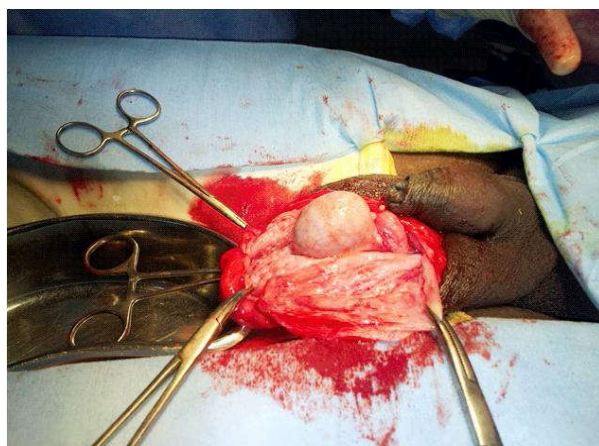
Number of cases operated	Elective	Emergency
46	39(85)	7(15)

Table 6: Nature of definitive operative treatment

Operation done	No of cases	Percentage(%)
Jaboulay's procedure	11	23.91
Lord's plication	5	10.86
Partial excision and eversion of sac	4	8.69
Varicocelectomy	5	10.86
HL	1	2.17
Orchidectomy	1	2.17
Derotation and Orchidopexy	1	2.17
Incision and Drainage	3	6.52
Excision of cyst	9	19.56
Herniotomy & Excision of sac	5	10.86
Biopsy	1	2.17
Total	46	100

Table 7: Post operative complications

Complication	No of cases	Percentage
Hematoma /edema of scrotum	11	23.91%
Wound infection	9	19.56%
Uncomplicated	26	56.52%

**Fig. 1:****Fig. 2:** Eversion of Tunica Vaginalis sac

Analysis of Various Laboratory Data;

Scrotal Ultrasound

This was done in 10 cases. The most common indication was sudden onset of pain over scrotum. 1 case of torsion testis was diagnosed and subsequently operated upon. 3 cases of epididymal cyst and 2 cases of acute epididymo orchitis along with 2 cases of Varicocele, 1 case of testicular tumour and encysted hydrocele were also diagnosed on scrotal ultrasound.

Total Leucocyte Count

One patient had a count of 14000, a case of scrotal abscess and another two cases were diagnosed as acute epididymo-orchitis.

Urine Microscopic Examination,

Pus cells were seen in 9 cases.

Urine Culture and Sensitivity:

This was done in cases suspected of urinary tract infection. The organisms which were grown included E.Coli, Proteus and Klebsiella. Most of them were sensitive to ampicillin/gentamicin/Norfloxacin.

Semen Analysis

This was done in 4 cases. Two cases of Varicocele showed oligospermia, who were treated with

varicocele. In the other 2 patients, semen count and morphology was normal.

Hydrocele Fluid Analysis

This was done in 13 cases.

Proteins: Range was 1.5 gm to 3.5gms.

Sugar: Range was 96mgm% to 130mgm%.

Abdominal Ultrasound Examination

This was done in case diagnosed to have testicular tumors. It was normal without any evidence of para-aortic lymph node involvement.

Histopathological Correlation

One case of testicular tumour which was sent for histopathology reported as seminoma.

Follow up

The follow up in general was poor. Most of the patients never turned up after leaving the hospital. The longest followup in this study was that of a case of tubercular epididymo-orchitis who came for upto 5 months after starting on ATT.

Discussion

Scrotal swellings are the common surgical problems. Scrotal swelling formed less than 1.7% of the total surgical admission to K.R. Hospital, Mysore.

In scrotal swelling clinical examination is the main tool for diagnosis. The common scrotal problems in adolescent and adult male patients that require medical care were swelling and pain. Bacterial epididymitis or epididymo-orchitis are the most common causes of scrotal pain in adults while torsion is more common in a younger age group [3,4,5,6]. Commonest cause for scrotal swellings was primary vaginal hydrocele at our institute. The majority of Epididymo-orchitis settle with conservative management [7]. Lord's procedure has the advantage that dissection in the scrotum is minimized, with a reduction in the risk of post-operative haematoma [8]. Recurrence rate and morbidity with sclerotherapy, advocate that it should be reserved for men where surgery carries an unacceptably high risk [9,10]. Wound infection and hematoma were the common complications in our patients similar to other studies [11]. Post-operative scrotal support helps to relieve pain.

Follow up rate is very poor, because most of them belong to rural places and their poor economic status.

Conclusion

Scrotal swellings formed the 1.70% of the total surgical admission to the K.R. Hospital. Majority of the scrotal swellings affects younger age group. Most of the cases are idiopathic. Scrotal swelling was the most common presentation. Rural population and poor in economic status, agriculture related workers are more suffers. Most of the scrotal swellings were diagnosed by clinical examination and ultrasound of scrotum (Doppler study) was very helpful in confirmation of diagnosis. Definitive surgical treatment was given to 45 cases and rest were treated by conservative line of management. Majority of the scrotal swellings were varieties of hydrocele. Primary vaginal hydrocele was most common. Jaboulay's procedure was the commonest procedure done with very minimum complications. Tubercular epididymo orchitis could be treated with medical line of management. Few of the operated cases developed post op complications like scrotal oedema. Most of the patients were lost to follow up during study.

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