

Clinico pathological Study of Cystic Swellings of Scrotum

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Research Article

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ABSTRACT :

The cystic swellings of scrotum are one among the common surgical problem in all age group. Objective of this study is to identify the cause, mode of presentation, various modalities of management and outcome of these with least complications. A total of 30 cases of cystic swellings of scrotum fulfilling the methodology criteria were subjected to preformated study. Final diagnosis was made with clinical examination and ultrasound. All 50 cases were treated surgically.

Most of the patients were in age group of 31-40 years, common presenting feature being scrotal swelling. Primary vaginal hydrocele was the commonest cystic swelling followed by epididymal cyst, sebaceous cyst, haematocoele, pyocoele. Most of the patients were discharged around 8th Post-operative day. All of the cystic swellings were treated surgically with good results.

Keywords: Scrotal swelling, Cystic Swellings.

INTRODUCTION:

Scrotal swelling is abnormal enlargement of the scrotum. This is the name for the sac surrounding the testicles. Scrotal swelling can occur in males at any age. The swelling can be on one or both sides, and there may be pain. The testicles and penis may or may not be involved.

In testicular torsion, the testicle becomes twisted in the scrotum and loses its blood supply. It is a serious emergency. If this twisting is not relieved quickly, the testicle may be permanently lost. This condition is extremely painful. Call 911 or see your health care provider immediately. Losing blood supply for just a few hours can cause tissue death and the loss of a testicle.

Causes of scrotal swelling include:

- Certain medical treatments
- Congestive heart failure
- Epididymitis
- Hernia
- Hydrocele
- Injury
- Orchitis
- Surgery in the genital area
- Testicular torsion
- Varicocele
- Testicular cancer

Accurate diagnosis of scrotal swellings is of paramount importance, since they may range from the common ones, hydrocele (Commonest), Epididymal cyst, Spermatocele to the rare ones like malignancy causing secondary hydrocele, hematocele, pyocoele, chylocele, parasitic cyst like schistosomiasis, cystic lymphangioma etc., and sebaceous cysts.

The diagnosis of intrascrotal lesions can be made by thorough history, physical examination and understanding the pathophysiological process of the structures contained within the scrotum. Lesions that are suspicious of malignancy should prompt urological consultation and radiological imaging. USG aids in the diagnosis in instances of uncertainty.

There are various complications developing secondary to the scrotal swellings. It has been suggested that a large and long standing hydrocele causes certain anatomical changes such as atrophy and hampers spermatogenesis. Prompt early and appropriate treatment is necessary to avoid various complications of the scrotal swellings.

The main of the study was to determine and confirm various etiological aspects of different swellings of scrotum. Also the study various modes of presentations, relative incidence and diagnostic procedures for swellings of scrotum.

Materials & Methodology:

This study was undertaken in Department of Surgery in North Indian Hospital. The study includes 30 admitted cases. Ethical committee approval was taken for the study. For sampling simple random technique was used.

Inclusion Criteria for the Study:

- Patients aged between 13 to 65 yrs.
- Cystic swellings from the testes & its coverings, epididymis, spermatic cord & from scrotal skin.

Exclusion Criteria for the Study:

- Cystic inguino-scrotal swellings.
- Patients aged above 65.
- Secondary hydrocele due to post operative and

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malignancies were excluded.

Results & Discussion:

Patients admitted with symptoms of scrotal swelling, pain and discomfort in the scrotal region were considered in the present study. Surgical procedure was tailored to the patient's needs. General or spinal anesthesia or sedation was administered.

Intra venous Ceftriaxone was given per operatively. Pain was managed with IM/oral Diclofenac sodium and IV Tramadol. Post-operative scrotal support was given in most of the case.

Table 1 : Age & Number of Cases

Age (years)	14-20	21-30	31-40	41-50	51-65	Total
No. of Cases	3	7	11	9	10	30

The Table 1 suggest that from the age group of 14-20 to 61-65 years the patients are observed with this condition.

Table 2: Condition & Number of cases

Condition	Scrotal Swelling	Scrotal Swelling + Pain	Pain alone	Scrotal Swelling+ Pain+ Fever	Total
No. of Cases	16	8	4	2	30

The table 2 data suggest the clinical condition. The 16 patients show the swelling of scrotum. 8 patients show the scrotal swelling with the observation of pain. Out of 20 patients only 4 patients showed only pain. While 2 patients show combination of symptoms like scrotal swelling, pain

Also the Epididymal cyst is also cause of swelling od scrotum which is seen in 9 patents. Other etiological conditions like Epididymo orchitis, Varicocele, Chylocele, Sebaceous Cyst, Scrotal abscess, Pyocoele, Spermatocoele, malignancy are seen in the selected population.

Table 5: Post-operative complications during hospital stay

Procedure	No. of Cases	Pain	Scrotal Oedema	Haematoma	Wound nfection
Eversion of sac	12	3	7	1	1
Conservative	3	1	2	0	0
Varicolectomy	2	0	1	1	0
Excision	8	2	4	1	1
Incision and Drainage	3	1	1	1	0
Orchidectomy	2	0	1	1	0
Total	30	7	16	5	2

The table 5 shows the post operative complications seen during the hospital stay. The post operative complications includes Eversion of sac which is seen in maximum number of patients i.e 12 patients out of 30 patients. Excision is other complications seen in the case study in 8 patients. Other complications include Conservative, Varicolectomy, Incision and Drainage and Orchidectomy are also observed in selected populations.

Patients with swellings of the scrotum rather present late even though they are noticed sooner mainly due to embarrassment and social stigma and most of them (adults) seek medical advice only after persistence by their spouses or partners. Present study conducted in our hospital included cases, selected from surgical wards, presenting with swelling of the scrotum.

Most of the patients were in age group of 31-40 years (50%), presenting feature being scrotal swelling as a main complaint in 60% of cases, majority of them presented with right sided swelling accounting 64%, majority of the swelling showed duration of symptoms within 7-12 months, accounting for 44% of the cases. However many other had scrotal swelling with pain or pain alone as a complaint, few presented with fever. After scrotal examination, the diagnosis was confirmed by scrotal ultrasonography in relevant cases. Primary vaginal hydrocele was the commonest cystic swelling (52%), followed by epididymal cyst. Eversion of sac with excision of excess sac is the procedure for hydrocoele. Most of the patients were admitted in the hospital for average 4 days. Advice of timely medication, scrotal support or wound hygiene of the surgical site and follow up was given.

with fever.

Table 3: Duration of symptoms & Cases

Duration	0 to 6 months	7 to 12 months	13 to 24 months	25 months and above	Total
No. of Cases	7	6	11	6	30

Table 3 suggest that the duration of the symptoms were maximum in 11 patients for 13 to 24 months. 7 patients are having the symptoms upto 6 months. The 6 patients have symptoms for 7-12 months. And there are only 6 patients of all the cases who are having symptoms for 25 months and above.

Table 4: Etiology of Swelling

Etiology	No. of Cases
Primary Vaginal Hydrocoele	9
Epididymo orchitis	2
Varicocele	1
Chylocele	2
Epididymal Cyst	9
Sebaceous Cyst	2
Scrotal abscess	1
Pyocoele	2
Spermatocoele	1
malignancy	1
Total	30

The Primary Vaginal Hydrocoele was seen in 9 patients.

The post-operative complication apart from pain, which was common in all patients, was sequelae, scrotal edema was found in 43 patients and hematoma post operatively in 4 cases. Epididymal cyst was the second most common cystic swelling treated by excision few were done under local and were discharged within 4 days. Similarly spermatocele was seen in 2 patients and were treated by excision. Hematoma was treated by evacuation and eversion of the sac. Pyocele was treated by Incision and Drainage under suitable antibiotics coverage.

Drain (corrugated) was kept as per the decision by the surgeon in few cases and was removed within 24-48 hrs. All the cases were given tight scrotal support and appropriate antibiotics, analgesics and anti-inflammatory, to relieve pain, reduce edema and hematoma. Post-operative complications were managed conservatively. Hematoma was seen in 4 cases managed conservatively.

Most of the patients were discharged between 4-5 days, but some patients who developed scrotal edema, hematoma and infection were kept till 7 days.

Conclusion:

- Majority of the patients with cystic swelling of the scrotum belonged to the 31-40 years of age group 28% followed by 11-20 years and 21-30years of age group 24% each.
- Scrotal swelling was the common mode of presentation (60%).
- Right side was dominant side of presentation than the left with a difference of 40%.
- Most of the patients were suffering with symptoms of duration 0-6 months (40%).

Swelling in the private parts was the main concern in most of the cases of cystic swellings of scrotum for which the patients presented. While this was helpful in most cases as the parents of the patients (in case of children), or the patients themselves or their spouses were apprehensive about the swelling and presented rather early compared to other disease of the body, the rural population usually tend to neglect. But in some cases there was delay in seeking medical attention mainly due to embarrassment and stigma associated with this. Primary vaginal hydrocele was the commonest, followed by epididymal cyst, sebaceous cyst, haematocoele spermatocele and pyocele accordingly. Cases undergoing surgical treatment only were selected by simple randomization. Spinal anaesthesia was commonly used, General anaesthesia was given in younger patients

and failed spinal anaesthesia (2 cases had failed spinal anaesthesia). Primary vaginal hydrocele was managed by two techniques, Lord's plication, and Jaboulay's eversion of sac. Lord's was the procedure which had least complication and lesser post operative stay duration than the other procedure. Excision was done for epididymal cyst, spermatocele, and sebaceous cyst. Multiple sebaceous cysts were treated by excision of the scrotal skin which was involved and primary suturing. Haematocoele was treated by evacuation and eversion of sac. Pyocele was incised and drained with supportive antibiotics (based on sensitivity) and analgesics. All the cases were given tight scrotal support and appropriate antibiotics and analgesics, corrugated rubber drain was placed in some cases and removed after 24 - 48 hours. Postoperatively, pain was present in all cases, with scrotal edema in few cases, infection and haematoma treated accordingly. Patients were discharged on average of 8 days. Patients were then followed for 2-4 months, maximum of 6 months. 12 patients were lost for follow up. No recurrences were found in follow-up period. To conclude, it is of top significance for the need for proper evaluation both clinical and investigation wise, selection of proper surgical technique, post-operative management and follow up of these cases. The same should be emphasized to the patients too.

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