ORIGINAL RESEARCH PAPER
Volume - 13 | Issue - 10 | October - 2024 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A RETROSPECTIVE STUDY ON ACUTE SCROTUM AT BUNDELKHAND MEDICAL COLLEGE, SAGAR. M.P.

General Surgery

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KEYWORDS

BACKGROUND

Acute scrotum is defined as "The acute onset of pain and swelling of the scrotum that requires either emergency surgical intervention or specific medical therapy." Acute scrotum is an emergency situation requiring prompt evaluation and urgent surgical intervention if required. There are many causes of acute scrotum important being epididymitis, Funiculitis, Epididymo-orchitis, pyocele, Fournier's gangrene, trauma, scrotal wall infection, torsion of testis and Fournier's gangrene. Though torsion of testis is more common in pubertal age group[1]. it must be considered as the first differential diagnosis and in case of doubt, a prompt surgical intervention is carried out to prevent further complications. Doppler USG of scrotum is an important diagnostic tool in acute scrotum[2].

Aims and Objectives

1. To study the various causes for scrotal swellings and their pattern of incidence in and around sagar.
2. To study the various clinical presentations of patients with swelling of the scrotum particular to acute problems and their management.

MATERIALS AND METHODS

The study was conducted by a retrospective analysis of the patients who were admitted with acute scrotum in all the surgical units of the Department of General Surgery, Bundelkhand medical college Sagar.

Inclusion Criteria

All cases of acute scrotum admitted in all the surgical units of our hospital.

Exclusion Criteria

1. Patients not giving consent for the study.

All patients were explained about the study and were consented before participating. All patients are subjected to detailed history taking and physical examination. Patients underwent basic investigations like complete blood counts, Renal function tests , Random blood sugar, Serum electrolytes. Then, the patients were subjected to USG scrotum with Doppler studies, if required. Based on the clinical diagnosis and the USG scrotum reports patients were subjected to appropriate surgery, if warranted. Cases of acute Epididymo-orchitis were managed conservatively. Patients were followed up closely in the postoperative period for any complications.

OBSERVATION AND RESULTS:

Diagnosis	Number of patients	Percentage
Epididymo-orchitis	40	40%
Scrotal abscess	27	27%
Pyocele	18	18%
Torsion of testis	3	3%
Fournier's gangrene	9	9%
Haematocele	3	3%

Age Distribution:

AGE	Number of patients	Percentage
<20 years	12	12%
20 – 40 years	27	27%
40 – 60 years	46	46%
60 – 80 years	15	15%

Mean Age Of Presentation:

Disease	Mean age of presentation
Epididymo-orchitis	30 to 50 years
Pyocele	35 to 45 years
Scrotal abscess	41 to 60 years
Haematocele	35 to 40 years
Torsion of testis	13 to 30 years
Fournier's gangrene	54 to 66 years

Predisposing Factors:

Factors	Number of patients	Percentage
Diabetes mellitus	34	34%
Urinary tract infections	32	32%
Trauma	8	8%
Tuberculosis	1	1%
Idiopathic	25	25%

Presenting Symptoms:

Clinical symptoms	Number of patients	Percentage
Swelling	97	97%
Pain	100	100%
Fever	73	73%
Urinary symptoms	36	36%
Nausea/ vomiting	12	12%
Pus discharge from scrotum	9	9%

Management:

Intervention	Number of patients	Percentage
Conservative management	40	40%
Debridement	9	9%
Orchidopexy	2	2%
Orchiectomy	20	20%
Incision and drainage	29	29%

DISCUSSION

The present study consisted of analysis of 100 patients who got admitted in BUNDELKHAND MEDICAL College, Sagar, M.P. the period of April 2024 to September 2024. In our study, acute Epididymo-orchitis 40 was to be the commonest cause for acute scrotum accounting for 40% of total cases followed by Scrotal abscess(27%), pyocele18%, Fournier's gangrene (09%), haematocele (03%), torsion testis (03%).

Epididymo-orchitis

We encountered 40 cases of Epididymo-orchitis in our study period, which accounted for 40% of cases.

In a study conducted by AS Cass and BP Cass[3], the maximum incidence of Epididymo- orchitis was 62% in contrast to our study with 40% incidence. Mean age of presentation was 30 to 50yrs. All the patients presented with unilateral pain in the scrotum associated with

fever. Urinary symptoms was present in 10 cases, diabetes mellitus in 2 cases while history of previous episodes of Epididymo-orchitis was present in 6 cases. Urine examination was done in all the cases, which showed traces of albumin in 2 cases, while there was presence of significant number of pus cells in 6 cases. Urine culture and sensitivity was done. USG scrotum was done in all the patients, which showed features of Epididymo-orchitis, i.e. hypoechoic, diffusely enlarged testis with hyperechoic and swollen epididymis with increased blood flow. All patients responded well for the conservative management (antibiotics + analgesics + anti-inflammatory + scrotal support).

Pyocele – Pyocele accounted for 18 cases (18%) with one case associated with Fournier's gangrene. Mean age of presentation was 35 to 45 yrs. History of diabetes mellitus was present in 7 cases. All the patients were subjected for USG scrotum followed by orchiectomy.

Fournier's Gangrene- Fournier's gangrene accounted for a total of 09 cases (09%) in the present study. Mean age of presentation was 54- 66 yrs. History of diabetes mellitus was present in 8 cases. All the patients were subjected to debridement initially followed by daily dressings. Based on the size of final defect, patients were treated conservatively or secondary suturing or by split skin grafting. In our study, 4 patients were treated with debridement alone, 3 patients underwent secondary suturing and 2 patients were subjected to split skin grafting.

Haematocele- Total number of cases of haematocele encountered was 03 cases (03%). History of trauma was done in all cases. USG scrotum showed features suggestive of haematocele. Orchiectomy was done in 2 cases. Incision and drainage was done in 1 patient In 2 cases, testis architecture were found to be destroyed, so orchiectomy was done. Specimen sent for histopathology. Histopathology showed disrupted testis.

Scrotal Abscess: We encountered 27 cases of scrotal wall abscess (27%). Mean age of presentation was 41-60 yrs. History of diabetes was present in 17 patients. Incision with drainage of abscess was done in all cases and the patients improved well following the treatment.

Torsion of Testis: Torsion of testis accounted for 3% of the cases in the present study as we encountered 3 cases with similar presentations. On par with previous studies, The patients who presented with torsion testis were of young age group with an age of presentation of 13-30 yrs. There was history of trauma to the scrotum in 2 cases and there was history of similar episodes in the past in two patients. Constitutional symptoms like nausea and vomiting was present in 1 patient. Patients were explored as soon as the diagnosis was made and 2 patients were found to have viable testis with twisting of the spermatic cord for which Testicular derotation was done and bilateral Orchidopexy was done. 1 patient had gangrenous testis with twisting of the cord on exploration for which orchiectomy followed by contralateral Orchidopexy was done.

CONCLUSION

Acute scrotum is a common case seen in the outpatient department with considerable morbidity, which requires prompt evaluation. This is an observational study comprising of 100 cases of acute scrotum admitted at Bundelkhand Medical College and Hospital during the period of April 2024 to September 2024. Acute Epididymo-orchitis was the commonest cause followed by Scrotal abscess. Most common age group involved was 41-60 yrs. Followed by 21-40 yrs. Pain in the scrotum was the commonest presenting symptom followed by swelling of scrotum. Conservative management was done in 40% patients, while the rest required surgical management. Torsion of testis is an important differential diagnosis in case of an acute scrotum, which requires emergency scrotal exploration. Any young patient presenting with acute scrotum, torsion of testis must be considered and evaluated. All the cases of acute scrotum must be subjected for USG colour Doppler of the scrotum. In patients with torsion testis, presenting within 6 hours of onset of symptoms, testis can be salvaged.

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