

CLINICAL OUTCOME OF PATIENTS WITH ACUTE SCROTAL PAIN AT A TERTIARY RURAL CENTRE IN MAHARASHTRA

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ABSTRACT

Introduction: Acute scrotum is a common reason for emergency consultation. Early scrotal exploration is mandatory if torsion of the testis suspected clinically. **Objectives:** To study management and clinical outcome of patients admitted with acute scrotal condition. **Methods:** This was a prospective observational study involving 60 patients hospitalized for Acute scrotum at tertiary rural centre, from September 2014 to September 2016. Patients admitted with complaints of acute pain and swelling of scrotum irrespective of age and gender were included in the study. Patient with painless scrotal swelling and those with chronic scrotal pain were excluded from the study. Patients were monitored post-operatively till discharge and followed for 1 month for any complications. **Results:** Of the 60 patients in our study, acute epididymo-orchitis (36.6%) was the dominant cause of acute scrotal swelling followed by scrotal abscess(23.3%). 51.6% of the patients were managed conservatively, which were diagnosed as epididymo-orchitis and haematocele. 14 patients underwent incision and drainage who diagnosed as scrotal abscess; 7 patients diagnosed as Fournier's underwent debridement; 5 underwent orchidectomy or orchidopexy while 3 underwent B/L orchidopexy. Out of 8 cases of torsion of testis, bilateral orchidopexy was done in 3 cases (37.5%) in which we were able to salvage the affected testis. Out of the 60 patients, maximum patients (41 patients) required a hospital stay of 1-10 days. All patients were followed up for a period of 1month after discharge. None of the patients had any serious complications. **Conclusion:** Acute scrotum can be successfully managed by conservative methods after exclusion of Torsion of testis. Early exploration can salvage the testis in cases of torsion of testis.

Key words: Acute orchiepididymitis; Acute scrotal swelling; Fournier's gangrene; Orchidectomy; Orchidopexy, Torsion of testis

INTRODUCTION

Acute scrotum is acute onset of pain and swelling of the scrotum that requires either emergency surgical intervention or specific medical therapy [1]. The main differential diagnoses are acute epididymitis, strangulated hernia, hematocle, hydrocele, testis tumor and idiopathic scrotal edema [2]. Torsion of testis is the most deleterious acute condition affecting the scrotum [3] and requires early diagnosis and treatment to salvage the involved testis. This will avoid complications like testicular loss, fertility problems and medicolegal issues [4]. Prognosis is good when detorsion of the affected testis is performed within first 6 hours [4, 5]. Scrotal exploration is mandatory if torsion of the testis suspected clinically [3]. The present study was aimed to

determine the Treatment outcomes of surgical and conventional management of patients presenting with acute scrotum admitted in Pravara Rural Hospital, Loni.

Aims and objectives: To study management and clinical outcome of patients admitted with acute scrotal condition in a tertiary care centre.

MATERIALS AND METHODS

Study design: The present study was descriptive study

Ethics approval: Institutional ethical committee clearance was taken before commencement of the study. Informed consent was obtained from the participants

Study period: Conducted during the period of September 2014 to August 2016 in Pravara Rural Hospital and Rural Medical College, PIMS, Loni.

Sample size: A total of 60 patients were selected after applying following inclusion and exclusion criteria.

Inclusion criteria: Patients admitted with complaints of acute pain and swelling of scrotum irrespective of age and genders willing to give written consent were included in the study.



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Exclusion criteria: Patient with painless scrotal swelling and those with chronic scrotal pain were excluded from the study.

Methodology: Detail history was taken followed by clinical examination for probable diagnosis. Relevant haematological and radiological investigation were done to confirm the diagnosis. Based on diagnosis patients were treated conservatively and/or operatively. Patients were monitored post-operatively till discharge and followed for 1 month for complications, if any.

RESULTS

In present study out of 60 patients maximum no of patients were in age group of 41 – 50 yrs 17 (28.3%) followed by 11(18.3%) patients in 61-70 yrs. Minimal patients were found in the extremes of age. Most of the patients, i.e, 32 (53.3%), presented with duration of symptoms of 1-3 days and least of patients, i.e, 7 (11.5%), with duration of symptoms of 6-9 days. All patients presented with Tenderness of scrotal swelling, 54 patients (90%) presented with redness, and 52 patients (86%) presented with local rise of temperature over the scrotal swelling. Most cases included unilateral scrotal swellings with 27 patients presenting on right side (45%) and 20 patients on left (33.3%). Number of Patients with bilateral scrotal swellings is 13 out of 60 (21.6%)

Table 1: Distribution of patients according to the diagnosis

Type of Acute Scrotal Swelling	No. of Patients	%
Epididymorchitis	22	36.6
Haematocoele	9	15
Scrotal Abscess	14	23.3
Torsion	8	13.3
Fournier’s gangrene	7	11.6

When patients were divided according type of scrotal swelling that they were diagnosed with, namely epididymorchitis, haematocoele, scrotal abscesses, torsion testis, fournier’s gangrene; maximum patients were observed with epididymorchitis i.e, 22 (36.6%) and minimum patients presented with fournier’s gangrene i.e. 7 (11.6%).

With respect to microbiological culture of pus samples, it was observed that 28 patient had E.Coli (65%) followed by klebsiella with 5 patients (11.62%) and least with acinobacter (6.9%) infection.

Table no. 2 shows that maximum patients were managed conservatively (51.6%) which were diagnosed as epididymo-orchitis and haematocoele. The number of patients who underwent incision and drainage are 14 i.e. 23.3%, diagnosed as scrotal abscess; 7 i.e. 11.6% patient that were diagnosed as fournier’s underwent debridement. Patients who underwent orchidectomy or orchidopexy were 5 i.e. 8.3%, while 3 underwent B/L

orchidopexy is 3 i.e. 5%.

Table no 2: Distribution of patients according to Management.

Management done	No. of Patients	%
Conservative	31	51.6
Bilateral orchidopexy	3	5
Orchidectomy with orchidopexy	5	8.3
Debridement	7	11.6
Incision and drainage	14	23.3
Total	60	100

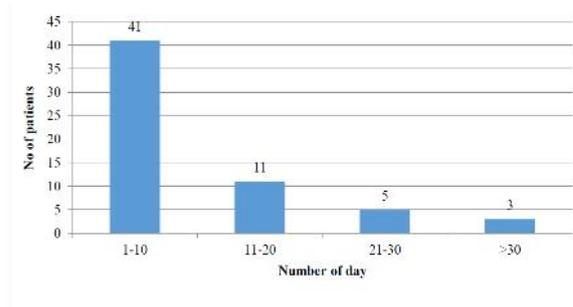


Figure 1: Distribution of patient according to their duration of hospital stay

Out of the 60 patients, maximum patients (41 patients) required a hospital stay of 1-10 days, and only a minimal number of patients (3 patients) required a hospital stay of more than a month. All patients were followed up for a period of 1month after discharge. None of the patients had any serious complications.

DISCUSSION

The present study consisted of analysis of 60 patients who got admitted to P.M.T, Loni with acute scrotal swelling during the period of September 2014 to August 2016. The main objective in patients with acute scrotum was to observe the treatment modality selected and the outcome of the management.

Sidler et al [6] in 1997 reported their series in which the most common (32%) etiology was testicular torsion, 70% in left testis, 31% torsion of testicular appendage and epididymo-orchitis

in 28% of the patients. In our study of 60 patients epididymoorchitis (36.5%), Hematocoele (15%), Scrotal abscess (23.3%), Torsion of testis (13.3)and 11.6% as Fournier’s gangrene.

Epididymitis was the commonest cause of acute scrotum. The condition is often idiopathic with infective, chemical, reactive and systemic diseases being the other causes [7]. The majority of cases settle with conservative management. Complications include abscess formation and testicular ischemia due to inflammatory involvement of cord and extrinsic compression of the testicular blood supply by the oedematousepididymis.

The reported incidence of complications ranges from 3 to 39% depending on the severity of the infection [8]. In our study all cases of epididymo-orchitis were managed conservatively and no patient had complication. In study conducted by Aaron P. Bayne [9] on 144 patients of torsion of testis in which 62 patients underwent orchidectomy of affected side with orchidopexy of another side, 35 patients underwent bilateral orchidopexy and 47 patients were conservatively managed in our study of 8 patients, 5 underwent orchidectomy of affected side with orchidopexy and 3 underwent bilateral orchidopexy no patient was managed conservatively.

A study conducted by Robert H. Johnson [10] on 83 patients of torsion of testis 51 underwent bilateral orchidopexy and 32 underwent orchidectomy of affected side with orchidopexy of other side. In our study 8 patients of torsion of testis 5 underwent orchidectomy of affected side with orchidopexy of other side and 3 patients underwent bilateral orchidopexy.

In the present study, all the patients underwent ultrasonography except for the cases of Fournier's gangrene. In this study of 60 cases, 31 cases (51.7%) were managed conservatively, who were diagnosed to have epididymo-orchitis and haematocoele. All other cases 29 (49.3%) needed surgical treatment. Patients who were treated conservatively responded well with complete recovery. All patients who were treated surgically had uneventful postoperative period. All patients were followed up for a period of 1 month after discharge and none of the patients had any serious complications.

CONCLUSION

In our study acute epididymo-orchitis (36.6%) was the dominant cause of acute scrotal swelling followed by scrotal abscess (23.3%). Most common age group presenting with acute scrotal swelling in our study was 41-50 yrs (28.3%) followed by 61-70 yrs (18%). Torsion of testis (13.3%) was an important differential diagnosis in case of an acute scrotum which required urgent emergency exploration. The commonest causative organism was found to be E.coli (65%) followed by Klebsiella (26.6%). Early exploration was found to be useful in cases of torsion of testis. Out of 8 cases of torsion of testis, bilateral orchidopexy was done in 3 cases (37.5%) in which we were able to salvage the affected testis.

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Conflict of interest : Nil

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