

TREATMENT MODALITIES FOR SCROTAL SWELLINGS AND ITS OUTCOME AT A TERTIARY CARE HOSPITAL

Dr. G.Konda Reddy¹, Dr. B.Madhava Krishna²

¹ Associate Professor, Department of General Surgery, Viswabharathi Medical College, Kurnool, A.P

² Associate Professor, Department of General Surgery, Government Medical College, Nandyal, A.P

Corresponding Author

Dr. B.Madhava Krishna

Associate Professor, Department
of General Surgery, Government
Medical College, Nandyal, A.P

Article Received: 21-03-2025

Article Accepted: 01-04-2025

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ABSTRACT

BACKGROUND: Scrotal swellings are one of the most prevalent clinical entities seen in surgical surgery. The purpose of this research was to determine the various treatment modalities and outcome with their complication of different types of scrotal swellings.

MATERIALS AND METHODS: This prospective study was carried out on a total of 50 subjects presented with scrotal swellings at a tertiary care hospital. The study was done for a period of one year. The treatment options were either conservative or surgical management and the post operative complications were recorded.

RESULTS: The maximum number of study cases, that was, 40% were from the group of 31-50 years age. Out of the 50 cases in this study, definitive operation was done for 46 cases and 04 cases were put on medical line of management. Jaboulay procedure was the most common surgery done for hydrocele followed by Lords plication and partial excision. Edema/ haematoma was seen in 20% of cases and were treated conservatively. Wound infection was observed in 14% of cases and responded to regular change of dressings with antibiotics.

CONCLUSION: The majority of patients presented with scrotal edema were treated with surgery under spinal anesthesia. Various forms of hydrocele constituted a major portion of the study and Jaboulay's procedure was the commonest operation done.

KEYWORDS: Scrotal swellings, Hydrocele, Treatment modality.

INTRODUCTION

Scrotal swellings are among the most prevalent clinical presentations seen in surgical treatment. Hydrocele, a prevalent scrotal enlargement, is characterized by an abnormal collection of serous fluid inside any portion of the processus vaginalis or the tunica vaginalis. Testicular tumors represent 1 to 2% of all malignancies in males; the introduction of cisplatin-based combination chemotherapy has significantly transformed the treatment of testicular tumors, resulting in a favorable five-year survival rate in advanced cases and the possibility of complete remission in most early cases [1]. Occasionally, the scrotum may experience swelling without an identifiable reason. Clostridium welchii and Streptococcus haemolyticus are likely to induce the disease known as idiopathic scrotal edema [2]. Torsion of the spermatic cord or testis constitutes a critical surgical emergency due to its potential to occlude gonadal blood flow, ultimately causing testicular necrosis and atrophy. It is common among prepubescent men aged 12 to 18. In the absence of contrary evidence, acute scrotal swellings in children suggest testicular torsion. Approximately two-thirds of the subject's physical examination and medical history are enough for reliable diagnosis [3].

Obliterative endarteritis of the scrotal vessels, accompanied by superinfection, results in Fournier's gangrene of the scrotum [4]. The management of testicular tumors has significantly evolved, achieving full remission via the identification of particular tumor markers, advancements in radiography, and the innovation of chemotherapy agents. Given the extensive array of medical disorders, it is important to ascertain the predominant cause and enhance understanding of the sickness to provide focused and customized therapy for effective management. Management is executed by several methods for each kind of scrotal enlargement. The gold standard for addressing cystic swellings of

the scrotum remains surgical excision of the lesion. The present study was conducted to identify the mode of presentation, various treatment modalities and outcome of these with their complications

MATERIALS AND METHODS

This prospective, cross-sectional study was conducted on patients who reported with scrotal swellings to the surgical wards of a tertiary care hospital during a one-year period. The study was authorized by the institutional ethics committee, and a total of 50 patients were recruited based on inclusion/exclusion criteria.

Patients of all ages who presented with scrotal swelling, as well as benign and malignant testicular and epididymal tumors, were included. Patients with severe infections, such as Fournier's gangrene, very unwell patients, and inguino-scrotal hernias were excluded.

Each case was examined in accordance with the proforma, which was created with the patients' written informed permission. The crucial information acquired from 50 cases was combined into a master chart with numerous headers. All individuals' symptom durations were given in days. Several presenting indicators were documented, including discomfort, painless swelling, urine symptoms, and fever. Questionnaires were utilized to assess each patient's predisposing characteristics, which were subsequently classified as trauma, idiopathic, previous history, or urine factors. All individuals got colour Doppler and ultrasound scans. The treatment options were either conservative or surgical management. Post-operative problems were documented. All facts were entered and indicated in the tables, and cases treated were appropriately recorded and followed up on. Data were analyzed using SPSS v22.0 software. Qualitative data was expressed in frequencies and percentages and Quantitative data in mean and standard deviation.

RESULT

The maximum number of study cases, that was, 40% were from the group of 31-50 years age, followed by 36% and 16.0% from 11-30 and 51-70 years of age group, respectively. The study subjects' mean age was 39.45 ± 15.26 as shown in Table 1

Table 1: age wise distribution of study subjects

Age	No. of cases (n)	Percentage (%)
<10	2	4
11-30	18	36
31-50	20	40
51-70	8	16
>70	2	4
Total	50	100
mean \pm SD	39.45 \pm 15.26	

Out of the 50 cases in this study, definitive operation was done for 46 cases and 04 cases were put on medical line of management.

Table 2: Treatment modality

Treatment	No. of cases (n)	Percentage (%)
Surgical treatment	46	92
Medical treatment	4	8
Total	50	100

41 cases were operated under spinal anaesthesia, 1 case was under general anaesthesia and 4 cases under local anaesthesia as shown in Table 3

Table 3: Type of Anaesthesia

Treatment	No. of cases (n)	Percentage (%)
Spinal	41	89
General	1	2
Local	4	9
Total	46	100

Jaboulay procedure was the most common surgery done for hydrocele followed by Lord's plication and partial excision. varicocelectomy was done in 6 cases. Orchidectomy was done in 4 cases, 2 for testicular tumor and 2 cases were for torsion testis. Orchidopexy was done in 3 cases of torsion where the affected testis was found. viable Incision Drainage were done for Fourniers and Scrotal abscess respectively as shown in Table 4

Table 4: Type of operation done

Operation done	No. of cases (n)	Percentage (%)
Jaboulay's procedure	16	35
Lord's plication	6	13
Partial excision and eversion of sac	3	7
Varicocelectomy	6	13
Orchidectomy	4	8
Derotation and Orchidopexy	3	7
Incision and Drainage	4	8
Excision of cyst	3	7
Excision of sac with hernioplasty	1	2
Total	46	100

The post operative complication rate in this study was 34%. The criteria were mild edema of scrotum, haematoma of scrotum and wound infection. Edema/ haematoma was seen in 20 cases and were treated conservatively. Wound infection cases responded to regular change of dressings with antibiotics.

Table 5: Post-operative complications

Treatment	No. of cases (n)	Percentage (%)
Hematoma /edema of scrotum	9	20
Wound infection	7	14
Uncomplicated	30	66
Total	46	100

DISCUSSION

The study's participants had a mean age of 39.45 ± 15.26 years. The majority are between 31 and 50 years old. Munda VS et al., [5] found that the youngest patient was 7 years old and the oldest was 68 years old. The highest number of cases were reported in the 31-50 age range.

Chauhan et al. [13] stated that cases were managed using various therapeutic techniques, with 28% being handled conservatively. In contrast, just 8% of patients in our research received conservative treatment.

In our analysis, the most often performed operation was Jabouley's treatment, which was consistent with earlier research. According to Kemprij et al. [6], Jabouley's operation was the most often performed surgery (57% of cases). Lord's plication and excision were done in 17.2% and 20.4%, respectively. Mahala et al. [15] found that surgically handled

individuals with scrotal edema Lord's plication was performed in 33 cases (47.14%), followed by Palomo's operation in 11 cases (15.71%) and varicocelectomy for one case (1.42%) of recurrent varicocele, while cyst excision was performed in 10 cases (14.28%), incision and drainage in 5 cases (7.14%), and high inguinal orchidectomy in 5 cases (7.14%). 3 instances (4.28%) with testicular torsion were treated with orchidectomy and contralateral orchidopexy. Only one instance (1.42%) received epididymectomy. One orchidectomy (1.42%) was performed for a scrotal abscess.

CONCLUSION

The majority of patients presented with scrotal edema were treated with surgery under spinal anesthesia. Various forms of hydrocele constituted a major portion of the study and Jaboulay's procedure was the commonest operation done

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