



“A DESCRIPTIVE STUDY ON CLINICAL PROFILE AND MANAGEMENT OF INGUINOSCROTAL SWELLING IN PAEDIATRIC AGE GROUP”

General Surgery

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ABSTRACT

The most frequent inguinoscrotal swellings are inguinal hernia and hydrocele.(1) However, others swellings such as undescended testis, retractile testis, ectopic testis, varicocele, inguinal lymphadenopathy, testicular tumors, scrotal oedema, encysted hydrocele of cord, diffuse lipoma of cord ,spermatocele and epididymal cyst also present themselves in the form of inguinoscrotal swellings .We report a case series of 61 pediatric patient's indooed with inguinoscrotal swelling in GMCH Miraj and PVPGH Sangli, with the objective to study most common inguinoscrotal swelling among admitted patients , most common side distribution , surgical management and clinical outcome.The study was conducted on cases diagnosed with inguinoscrotal swelling, the diagnosis was made on clinical findings along with investigation such as ultrasonography bilateral inguinoscrotum . A detailed history was taken at time of admission with examination .Most of cases where operated by Herniotomy , few orchidopexy , one case by incision and drainage and one case was managed conservatively.

KEYWORDS

Inguinoscrotal swelling , Congenital inguinal hernia , Congenital hydrocele, Herniotomy

INTRODUCTION

One of the common condition in paediatric age group is inguinoscrotal swelling. In congenital inguinal hernia parents are usually the first person to notice the swelling or bulge in inguinoscrotal region (1) The typical presentation is seen as groin swellings which appears with increased intra-abdominal pressure such as crying or straining which disappears spontaneously or with gentle manual pressure. Abdominal distention, vomiting, and absence of stool/flatus suggesting intestinal obstruction. With strangulation, bleeding per rectum may be seen which may complicate as perforation peritonitis Hydrocele occurs when fluid collects between two layer's of tunica vaginalis of testis. It presents as a translucent smooth non-tender swelling.

Undescended testicles are a common childhood condition where a boy's testicles are not in their usual place in the scrotum Ectopic testis is a rare congenital abnormality in which the testis is abnormally located away from normal line of decent.

Varicocele is a defective valves within the testicular vein that allow the normal blood flow to be reversed Testicular tumours are rare in children under 15, then accounting for 2–4% of all childhood cancers (2) The risk factors include Intrautero exposures, perinatal variables ,cryptorchidism and gonadal dysgenesis (3). Scrotal wall abscess can be due to infection of sebaceous cyst, folliculitis or a cellulitis with secondary abscess formation most common tumour accounting (83%) In many of these cases, clinical examination may suffice to obtain a definite diagnosis, but when the diagnosis is inconclusive, ultrasonography can play an important role. Laparoscopic surgery has emerged as a popular alternative to open surgery in the management of inguinal hernia surgery in last decade owing to it being safe, feasible, gives a clear view of anatomical structures and vas deferens is not touched, opposite side ring is also seen and can be managed in the same setting.

Aim And Objectives

Aim:

To study clinical profile and management of inguinoscrotal swelling in paediatric age group

Objectives:

1. To study the most common inguinoscrotal swelling in paediatric age group.
2. To study most common side distribution of inguinoscrotal swellings in paediatric age group.

3. To study the surgical management and clinical outcome of inguinoscrotal swellings in paediatric age group.

MATERIALS AND METHODS

This is a hospital based study carried out at GMCH Miraj and PVPGH Sangli, to study the clinical profile and management of the Inguinoscrotal swelling in paediatric cases admitted in the department of General surgery over a period of 18 months (January 2021 to june 2022)

It included all patient admitted in hospital with provisional diagnosis of inguinoscrotal swelling with age group below 12 years , both gender with parents giving consent were included and patients with multiple congenital anomaly , those unfit for surgery were excluded from study .

Observation

A total of 61 cases of Inguinoscrotal swelling were studied and following observation was obtained

Type Of Inguinoscrotal Swelling:

In this study, out of 61 cases of pediatric inguinoscrotal swelling , 28 cases (45.9%) of Inguinal Hernia, 23 cases (37.7%) of Congenital Hydrocele, 8 cases (13.1%) of Undescended Testis, 1 cases (1.6%) of lymphadenitis and 1 case (1.6%) of scrotal abscess where reported

Table 1: Type Of Inguinoscrotal Swelling

Type of Inguinoscrotal swelling	Frequency	Percentage
Inguinal Hernia	28%	45.9%
Congenital hydrocele	23%	37.7%
Undescended Testis	8%	13.1%
Inguinal lymphadenitis	1%	1.6%
Scrotal abscess	1%	1.6%
Retractile testis	0%	0%
Torsion testis	0%	0%
Ectopic testis	0%	0%
Epididymal cyst	0%	0%
Varicocele	0%	0%
Epididymo orchitis	0%	0%
Spermatocele	0%	0%
Lipoma of cord	0%	0%
Hydrocele of canal of nuck	0%	0%
Trsticular or paratesticular tumor	0%	0%

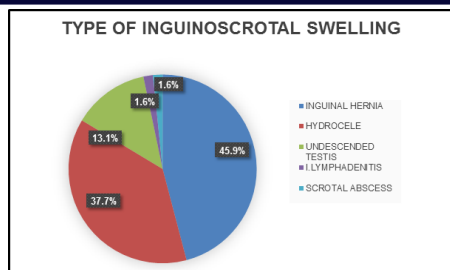


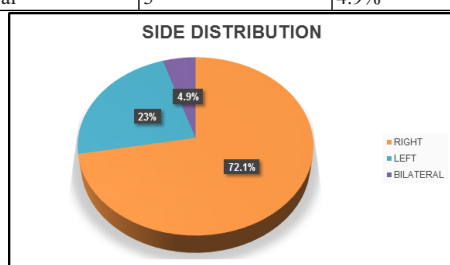
Chart 1: Type Of Inguinosrotal Swelling

Side Distribution

In this study out of 61 cases, 44 cases (72.1%) had Right side Swelling 14 cases (23%) where left side while 3 cases (4.9%) where bilateral

Table 2 : Side Distribution

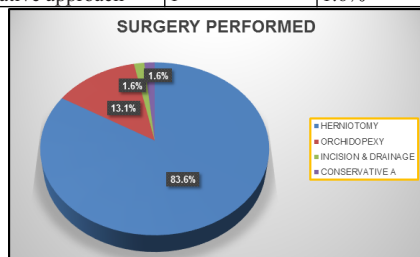
Side	Frequency	Percentage
Right	44	72.1%
Left	14	23%
Bilateral	3	4.9%

**Operation Performed**

In this study out of 61 cases, 51(83.6%) cases were treated with open herniotomy, 8 (13.1%) were treated with orchidopexy, 1 (1.6%) cases was treated by incision and drainage of scrotal abscess, while 1 (1.6%) cases of inguinal lymphadenitis was managed by conservative approach.

Table 4: Operation Performed

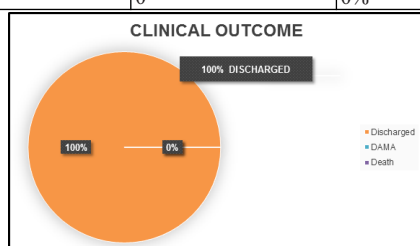
Type of operation	Frequency	Percentage
Herniotomy	51	83.6%
Orchidopexy	8	13.1%
Incision and drainage	1	1.6%
Conservative approach	1	1.6%

**Clinical Outcome**

In this study all the cases had good clinical outcome and were discharged.

Table 6:

Clinical outcome	Frequency	Percentage
Discharged	61	100%
DAMA	0	0%
Death	0	0%

**DISCUSSION**

Congenital inguinal hernia is the most common inguinosrotal swelling encountered in our study.

Type Of Inguinosrotal Swelling:

In this study amongst 61 cases, 28 cases (45.9%) cases had Inguinal hernia, 23 cases (37.7%) cases had congenital hydrocele, 8 cases (13.1%) cases had Undescended Testis, 1 cases (1.6%) of inguinal lymphadenitis and 1 case (1.6%) of scrotal abscess, which is in accordance to clinical study reported by Verma et al where he reported inguinal hernia as 72.7%, hydrocele 11.4%, (59) and A V Ingale et al 56% inguinal hernia, 28% hydrocele, 8% undescended testis, 2% inguinal lymphadenopathy (5)

Side Distribution :

There was predominance of right sided swellings in our study, we report 44 cases (72.1%) which were right sided, 14 cases (23%) left sided and 3 cases (4.9%) bilateral. The results of our study are in consistent with a study by Micheal et al reported an incidence of 63.5% on right side, 27% left side and bilateral 9.5%. A retrospective study by Sigmund operated and followed 6361 infants and children with inguinal hernia and reported the incidence 59% right side, 29% left side and 12% bilateral. In a prospective study by Pradhan GB et al bilateral hernia was noted as 3, 27%. Larsen RM in a study of 111 cases of inguinal hernia in children found 60 cases on the right side, 39 cases on the left and 12 cases as bilateral. (1)

Potts WJ conducted studies on inguinal herniotomies in children below 12 years over a period of 5 years. 12 They found that 70% occurred on the right side and 9% associated with hydrocele. 17% was bilateral presentation. A study by Wilson D-Storey reported 67% right sided, 25% left sided and 8% bilateral inguinosrotal swelling were found. (1).

Type Of Operation Performed

In our study out of 61 cases, 51 (83.6%) cases were treated with herniotomy, 8 (13.1%) cases orchidopexy, 1 (1.6%) cases incision and drainage. In a study by Koranga et al 38 (95%) cases were treated by herniotomy while 3 (5%) cases were treated by orchidopexy. (1) In a study by Verma et al out of 44 cases, 36 (81.8%) were treated with herniotomy, 4 (9.1%) cases with lap hernio and 4 (9.1%) with orchidopexy. (6)

Clinical Outcome

In our study none of patients had complications and were discharged, the results are consistent with study reported by Kornaga et al (1), Verma et al (4), Dsouza et al (7).

CONCLUSION

Inguinal hernia and hydrocele in children remain one of the most common inguinosrotal swelling observed by surgeons. Prompt diagnosis and early treatment of the inguinal hernia continues to be the mainstay. An inguinal hernia will not resolve spontaneously and should be repaired as soon as possible after the diagnosis because of the risk of obstruction, incarceration or strangulation. The childhood inguinal hernias and hydrocele are generally more predominant on the right side and congenital anomalies like undescended testis can be associated with it. Open herniotomy is the operation of choice for inguinal hernias in children. These hernias can also be repaired laparoscopically if facility available. In the case of undescended testis, orchidopexy is done and also herniotomy along with it. Post-operative complications are usually rare following elective operation whereas minor complications do occur after emergency operation. Recurrence is usually rare if operated by experienced surgeons.

REFERENCES:

- Koranga H, Chandrasekaran R. A study of clinical evaluation and management of inguinosrotal swelling in paediatric age group. International Surgery Journal. 2018 May 24;5(6):2097-102.
- Paick S, Choi WS. Varicocele and testicular pain : A review. Wond J Mens Health 2019 Jan;37(1):4-11.
- E Clays, O. Schockaert. A funny case of funiculitis. Acta Clin Belg. 2021 jun;76(3):232-235.
- Tasian GE, Copp HL. Diagnostic performance of ultrasound in nonpalpable cryptorchidism: a systematic review and meta-analysis. Pediatrics. 2011 Jan;127(1):119-28.
- Evaluation and Treatment of Cryptorchidism (2014) - American Urological Association [Internet]. [cited 2019 Oct 19]. Available from: <https://www.auanet.org/guidelines/cryptorchidism-guideline>
- Youssef AT. Inguinosrotal and inguinolabial swelling in infancy: Role of ultrasound. African Journal of Urology. 2015;21(4):201-9.
- Nilsson H, Stylianidis G, Haapamäki M, et al. Mortality after groin hernia surgery. Ann Surg. 2007;245:656-660.