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A comprehensive study of 60 cases of undescended testis

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Abstract

Aim: To study age of presentation, causes, modes of presentation, investigations and management of several consecutive cases of undescended testis presenting to general surgery department.

Materials and methods: A prospective study was conducted on 60 patients presenting with undescended testis to general surgery and paediatrics department during the period January 2016 to August 2018. All the demographic variables studied, their percentages calculated with respect to total number of cases and all the data tabulated.

Results: In this study of 60 patients, about (45)75% of them belonged to 2-5 years age group. 20% (12) of them presented between 5 to 10 years. As many as 24(40%) were noticed by parents and 36 (60%) were identified by consulting paediatricians during regular checkup and were referred to surgeons. As per the position of testis is concerned, about 90% (54) of them were found in inguinal canal followed by high scrotal and intra-abdominal positions in that order. Ultrasound scan identified the position of testis in almost all the cases. Orchidopexy was successful in 95% of cases.

Conclusion: Children with undescended testis usually present in 2-10 years age group with most of them first noticed by their parents. The common location of undescended testis is in the inguinal canal and ultrasound scan is effective in diagnosing the condition. Orchidopexy gave good results and so can be considered as the procedure of choice.

Keywords: Undescended testis, Orchidopexy, ultrasound scan, inguinal canal

Introduction

Testis is retroperitoneal in origin and descends from there into the scrotum through the inguinal canal by birth [1]. Failure of this descent results in undescended testis where testis gets stuck in multitude of locations viz. Intra-abdominal, Canalicular, high scrotal, femoral etc. In majority of cases its idiopathic [2]. Undescended testis is the most common sexual differentiation disorder in males. Testicular non-descent results in complications like malignant change, infertility, torsion etc. due to histological changes in testis [3]. In fact these changes were found to start by 2 years of age. Hence early detection and early correction play vital role in managing the condition.

Orchidopexy [4] stands the procedure of choice in majority of cases as testis is palpable in them. In a minority of cases (9%) where testis is hidden in retro peritoneum various lengthening procedures have to be done to get the desired result.

Material and Methods

A Prospective study was conducted at Narayana Medical College, Nellore, AP, India from January 2017 to July 2019. Cases of undescended testis coming to general surgery OPD and also cases referred from department of paediatrics were considered for this study about 60 cases were selected. Patients age at the time of presentation, unilateral or bilateral, position of the testis, histopathology of orchidectomy specimen if any and type of surgical procedure adopted, were the variables studied. Ethics committee approval was taken.

Results

The following were the results obtained and they have been tabulated. Majority of patients (about 50%) presented in the age group of 5-10 years. In 3/4ths of cases it is the parents who noticed empty scrotum and presented to us. Ultrasound scan was able to locate the exact position of testis in almost all cases. Orchidopexy remained the main stay of treatment in our study where in about 87% of children underwent this procedure.

Table 1: Age at presentation in 60 patients with undescended testis

Age (years)	No of patients
1-2	10(16.66%)
2-5	9 (14.9%)
5-10	28 (46.48%)
10-15	8 (13.28%)
> 15	5 (8.3%)

Table 2: Mode of presentation in 60 patients with undescended testis

Presenting Complaints	No. of patients
Absence of testis noticed by parents	45 (74.7%)
Noticed by patient himself	5 (8.3%)
Infertility	5 (8.3%)
Tumour	1 (1.66%)
Torsion	1 (1.66%)
Hernia	3 (4.98%)

Table 3: Clinical and ultrasonography position of the testis in 60 patients with undescended testis

Position of testis	On clinical Examination	On ultrasound Examination
Abdominal	15	6
Canalicular	40	49
High scrotal	4	4
Ectopic	1	1

Table 4: Type of surgery

Type of surgery	No. of patients (n=60)
Orchidopexy	52 (86.32%)
Stephen-fowlers procedure	5 (8.3%)
Orchiectomy	3 (4.98%)

Discussion

Undescended testis cases come to surgery OPD as walkins by apprehensive parents and through referral from paediatricians. In this study, majority of the children (46%) were in the age group of 5-10years and about 75% of them were in less than 10 years age category. these results were in concurrence with a study conducted by Seddon *et al.* [5] where the mean age was found to be 7.5 years at the time of diagnosis. In contrast, in a study conducted by KJ philipose *et al.* [6] majority of patients were after 15 years of age. Lowe *et al.* [7] found a mean age of 3.9 years in patients with undescended testis in a paediatric surgical centre.

In this study about 45 cases (74%) were brought to the OPD after being noticed by parents themselves highlighting the growing awareness. very much similar result was derived in a study conducted by KJ Philipose, Maudar and Samir gupta [8].

Lydia ferguson *et al.* found that there is an increased risk of testicular malignancy by 7 fold in cryptorchids.in our study 1 case was found to harbour seminoma.as far as testicular torsion is concerned Johnson *et al.* reported an incidence of 21% in Cryptorchids. Whereas a study by sahib naouar *et al.* reported 13 cases of torsion in undescended testis patients.in our study 1.66% cases presented with torsion.

Ultrasound scan was found to identify the exact location of testis in almost all the cases in our study concurring with the results of S Boopathy Vijayaraghavans study [9, 10].

Orchidopexy stood the procedure of choice in our study wherein 86%cases got the technique feasible. The same was expressed by Jerzy K. Niedzielski *et al.* [11] in their study. In this series only 5% cases underwent orchidectomy. Elder suggests that orchietomy should be done for post-pubertal males with unilateral undescended testis. Grasso *et al.* [12] found that

orchidopexy was useless in post-pubertal patients. When adequate length is a problem for bringing down the testis, Stephen-fowlers two step approach was used in 8.3% of cases and was found to be successful after followup. Agrawal *et al.* emphasized the same in their study.

Conclusion

Children with undescended testis usually present in 2 -10 years age group with most of them first noticed by their parents. The common location of undescended testis is in the inguinal canal and ultasound scan is effective in diagnosing the condition. Orchidopexy gave good results and so can be considered as the procedure of choice.

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