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Age at Operation and Outcome of Undescended Test is in a Rural Setup

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Abstract

This is a review of 100 cases of undescended testes operated at the Indian Institute of Medical Science and Research, Warudi, over a period of 5 years. In the cities, these patients present early, usually soon after birth or in infancy but in a rural setup, the presentation is late, sometimes very late and sometimes for a different reason like hernia. As a result of late presentation, the incidence of atrophy in the undescended testes is high.

Keywords: Testis; Undescended; Atrophy; Orchidopexy.

Introduction

Undescended testis is the most common birth defect of the male genitalia[1,2]. Commonest associated conditions are inguinal hernia, hypospadias and abnormal genitalia. Usually one testis is affected but in 10% cases, testis is bilaterally undescended. There are various ways of classifying undescended testis but clinically there are mainly two types: Palpable and Impalpable. More than 70% undescended testes are palpable in the hands of experienced surgeons[3]. Earlier, the ideal time of operation was considered as one year but now majority of surgeons recommend operation at 6 months[4]. Orchidopexy is successful in 95% cases with low complication rate of 1%[5]. Even in some advanced countries like U.K., early orchidopexy is not being achieved[6]. In an ideal setup in cities where deliveries take place in hospitals and newborns are seen by paediatricians, most of the babies are diagnosed at birth and refered to paediatric surgeons. In a rural setup the story is very different.

Materials and Methods

This is a Retrospective study of 100 cases operated between January 2013 and December 2017 over a period of 5 years. The records were checked the age of presentation and operation, reason for presentation, clinical types of undescended testis, operative findings [position, size, length of the cord], the operative procedure performed [exploration, orchidopexy, orchidectomy or first stage orchidopexy] and other associated anomalies or hernia.

Results

The age range of presentation was between 3 months and 70 years (Table 1) with mean age of 13 years.

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Table 1: Agewise distribution [Age at presentation]

Age	No. of Cases
3 months to 1 year	8
1 to 5 years	19
6 to 10 years	22
11 to 15 years	17
16 to 20 years	9
21 to 30 years	13
31 to 70 years	12

51 cases had right sided undescended testis, 40 had left sided and 9 had bilateral undescended testes which makes a total of 109 undescended testes (Table 2).

Table 2: Side of the undescended testis

Side	No. of Cases
Right	51
Left	40
Bilateral	9

72 were palpable and 37 were impalpable. Regarding the site of the testis, out of 72 palpable testes, 59 were found in the inguinal region, 11 were ectopic and 2 were rectractile. Out of 37 impalpable, 15 were intraabdominal, 6 were canalicular and 16 were absent or atrophic (Table 3).

Table 3: Site of Undescended testis

Site	No. of Cases
Inguinal	59
Intraabdominal	15
Ectopic	11
Rectractile	2
Canalicular	6
Absent or Atrophic	16
Total	109

Associated hernia or patent processes vaginalis was found in 36 cases, hypospadias in 3 cases and phimosis in 2 cases. Orchidopexy was performed in 82 cases, orchidectomy in 14, exploration in 4 and first stage orchidopexy in 9 cases (Table 4).

Table 4: Proceedures performed

Proccedure	No. of Cases
Orchidopexy	82
Orchidectomy	14
Exploration	4
First Stage orchidopexy	9

52 testes were found to be of normal size, 41 were small, 12 were atrophic and 4 were absent (Table 5).

Table 5: Size of the testis

Size	No. of Cases
Normal	52
Small	41
Atrophic	12
Absent	4

Hormonal studies, semen analysis and testicular biopsies were done in selected cases. Adults with intraabdominal testis had testicular biopsies but no malignancy was found. Hormonal study in small testis revealed normal levels. Semen analysis with bilateral impalpable testes showed azoospermia.

Discussion

In the cities, undescended testes are diagnosed early usually soon after birth but in rural areas, presentation is usually late. There are several reasons for this late presentation like home deliveries, illiteracy, ignorance and lack of awareness in parents. Boys are ashamed to reveal it after they find out at the school going age. Low socioeconomic status and dependence on farming is another reason. Some people believe that this is from god and they have to live it. Its a taboo in some places and they don't want anybody to know about it. Some people realize its importance only when they reach puberty or age of marriage. Some patieints present for a different reason. In our series 12 patients who presented after the age of 30 came for hernia and undescended testis was diagnosed on examination. Lack of surgical facility in rural areas is also a reason. People have some idea about the fertility implications but no idea about the risk of malignancy. Amongst the general public, less than 1% know about undescended testis and none of them know about age of orchidopexy[7]. Standard treatment is orchidopexy. Hormonal treatment is controvertial. Success rate of HCG is low[8] and hcg may be harmful to future spermatogenesis through increased apoptosis of germ cells[9]. Risk of malignancy is 10–40 times, highest in intraabdominal testis and orchidopexy does not reduce the risk[10]. Management of undescended testis can be improved by education updates among primary healthcare practitioners[11].

Conclusion

In spite of tremendous advances in the medical care in urban areas, the rural areas are lagging far behind. There is need to educate the people as majority of people in rural areas are illetrate. More

schools and colleges are needed. There is also need to bring awareness about specific problems like Undescended testis and Hypospadias amongst the general population and healthcare workers. The risk of infertility and malignancy has to be told specially to the healthcare workers in the rural areas so that it can be conveyed to the parents. More hospitals and health facilities are needed in the rural areas. No operative facilities were available in the area before our Institute started. This is also one of the reason for late presentation. In our series, the incidence of atrophic testis was very high due to late presentation. This is one factor can be prevented if proper measures are implemented.

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