

Clinical and surgical outcome of un-descended testes (UDT) in children – a cross sectional study

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Abstract

Background: Undescended testes (Cryptorchidism) is in fact simple developmental abnormality represents one of the most common developmental disorders of childhood. Testes do not naturally descend into the scrotum are considered abnormal. An undescended testicle is more likely to develop cancer. Bringing the testes into the scrotum can improve sperm production and increase the chances of good fertility. To this purpose we have evaluated the cases of undescended testes with respective of different anatomical locations, palpability, their association with developmental anomalies and their surgical outcome in pediatric population.

Methods: This is a descriptive study was conducted in to the general surgery department, SAH & RC, B G Nagar, Karnataka during the period December 2004 to May 2006. 31 children between the ages of 1-16 years, admitted with the history of absence of testis in the scrotum since birth were included and children who had intersex disorder and retractile testis were excluded. Open orchidopexy was done for all cases and follow up regularly up done to three months with uneventful events.

Results: The average age of presentation was 7.75 ± 5.12 years. 52% of undescended testis was present on right side. Testis is palpable in all cases of undescended testis. Most abnormalities found were of gubernaculum. We did open orchidopexy for all cases, orchidopexy carried 95% of success rate and post-operative period was uneventful. We did not find any ascent, atrophy of testis and wound infection at six month follow up.

Keywords: Undescended testes (UDT), Cryptorchidism, Orchidopexy

Introduction

The testes are specialized pair of organs which produces spermatozoa and androgenic hormones in males. Undescended testicle (Cryptorchidism) is apparently a developmental variance represents one of the most universal developmental disorders of childhood.⁽¹⁾ It will have an effect on all race and there does not seem to be a

geographic propensity, although undescended testis may be associated with a number of chromosomal and hereditary disorders in which specific defect can be identified, at the present time the majority of the cases appear to be isolated.⁽²⁾ Naturally testes do not descend into the scrotum are considered abnormal. An undescended testicle is further likely to develop cancer. It

has been recognized that men with a history of undescended testicle will have incidence 1 in 1,000 to one in 2,500 of testicular germ cell cancers that is undescended testicle is.⁽³⁾ through surgical repair and bring back testes into the scrotum will improve sperm production and boost the chances of fertility.⁽⁴⁻⁵⁾ Treatment for the undescended testes can be hormonal, surgical or a combination of the two. Because the process of testicular descent is hormonally mediated, it can sometimes be induced with hormone administration. Administration of systemic testosterone is minimally effective in achieving testicular descent.⁽⁶⁾ Early surgical adjustment helps to reduce the risk of above complications. Thus it is important to follow mobilization, cord dissection, isolation of patent processes vaginalis and relocation of the testis into the scrotum. The inguinal orchiopexy is a well established operation for the palpable undescended testicle.⁽⁷⁾ To this purpose undescended testes cases were evaluated with respect of different anatomical locations, palpability, their association with developmental anomalies and their surgical outcome in pediatric population.

Methods

This is a descriptive study was conducted in to the general surgery department, Adichunchanagiri Institute of Medical Sciences, BG Nagar Hospital, Karnataka during the period December 2004 to May 2006. 31 children between the ages of 01-16 years, admitted with the history of absence of testis in the scrotum since birth were included and children with intersex disorder and retractile testis were excluded. Institutional Ethical committee has given permission and informed consent was obtained from the parents before admitting in to the hospital and to carry out the surgical procedure. Detailed history, routine investigations like TC, DC, Hb and systemic examination were done in all patients. Ultrasound examination of the abdomen was

done in all cases. Open orchidopexy was done for all cases and regular follow up done for next three months with uneventful events.

Results

The average age of presentation was 7.75±5.12 years. 52% of undescended testis was present on right side. Testes are palpable in all cases of undescended testis. Most abnormalities found were of gubernaculum. We did open orchidopexy for all cases, orchidopexy carried 95% of success rate and 5% patients developed complications like wound infection and bleeding, it was managed with appropriate antibiotics and wound care. Overall the post-operative period was uneventful.

Table 1: shows the age incidence of imperfect descent of testis.

Age	N=31	%
< 2 years	3	10%
2-5 years	8	26%
5- 10 years	16	52%
10 -18 years	4	13%

Table 2: Shows the side of involvement.

Laterality	N=31	%
Right side	16	52%
Left side	13	42%
bilateral	2	6%

Table 3: Location of the palpable testis.

Position of Palpable Testis	N=31	%
Mid-Scrotal	2	6%
Root of scrotum	2	6%
Superficial pouch	14	45%
External ring	4	13%
Inguinal canal	9	29%

Table 4: Anomalies associated with undescended testis.

Anomalies	N=31	%
Epididymal	1	3%
Gubernaculum	2	6.5%
Vas Deferens	1	3%

Discussion

The majority of Undescended testes (UDT) (90%) are palpable in the inguinal canal or ectopic in the superficial inguinal pouch on physical examination and the remaining 10% of UDT that are nonpalpable, half are intra-abdominal (5% of all UDT) and half are atrophic and nonviable (5% of all UDT). Physical examination is used most often to diagnose UDT. Radiographic evaluation (ultrasound, CT or MRI imaging) adds only limited information in identifying testicles not apparent on examination⁽⁸⁾ Our study results were corresponding closely with Sathyanarayana et al study⁽²⁾

Conclusion

Imperfect descent of testis is the most common problem encountered in pediatric surgery OPD.

Undescended testes is most commonly seen in right side (52%), all are palpable, superficial pouch is the most common site (45%) of presentation. There were 4 cases of associated developmental anomalies found of which Gubernaculum is common. 52% presented in 5-10 years of age group. Orchidopexy is palpable cases of undescended testes.

Conflict of interest: None.

References

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