



Undescended Testicle Operated with Orchiopexy Surgery: A Case Report

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

The testicles develop in the abdomen while a male baby is still in the uterus. Before birth, the testicles typically drop from inside the abdomen down into the scrotum. The scrotum is the sack of skin hanging behind the penis where the testicles are housed.

Undescended testicles fail to drop into the scrotum before birth or in the first few months of life. The condition is also called cryptorchidism.

Here we discussed, A 15 Years old male child was brought to Acharya Vinobha Bhawe Rural Hospital with a complaint of undescended testis and is brought for surgical management. The history of previous illness as narrated by the father the child was born with an undescended testis on the right side.

Keywords: Testicles; uterus; scrotum; undescended testicles; cryptorchidism.

1. INTRODUCTION

Cryptorchidism is a medical word that refers to the lack of testis on one or both sides of the scrotal sac. During foetal life, cells that are genetically predisposed to do so create bodily organs in certain places. The ascent or fall of particular organs for their functional objectives will be influenced by unequal growth throughout intrauterine life. Several intrauterine and postnatal factors influence this migration. They may become trapped in the middle of their migration, resulting in a variable condition known as cryptorchidism [1].

Underdeveloped testicles affect approximately 3% of newborns; however, the condition is much more common in premature infants. Within a few months of birth, the testicles of approximately half of all babies born with undescended testicles descend on their own [2].

Factors that predispose to cryptorchidism include prematurity, low birth weight, small size for gestational age, twinning, and maternal exposure to estrogen during the first trimester. Cryptorchidism affects 7% of the siblings of boys with undescended testes. After the first year of life, spontaneous descent is uncommon [3].

1.1 Patient Information

A 15 Years old male child was brought to Acharya Vinobha Bhave Rural Hospital with a complaint of undescended testis and is brought for surgical management. The history of previous illness as narrated by the father the child was born with an undescended testis on the right side. The child was taken to a local practitioner where ultrasonography of stratum was done and manifest undescended right-side testis located in suprascrotal region. The child is referred to AVBRH for further management. The patient's development history is normal he achieves all milestones as per their age and he has taken all immunization doses as per their age. The general parameter is normal with a normal hearth sound, respiratory function, abdominal palpation and consciousness to time, place and person.

1.2 Clinical Findings

Physical examination was done by a physician, the finding was unpalpable of the right side of the testis. The physician suggested ultrasonography

for detail finding and after done ultrasonography patient's final diagnosis was made Undescended Testicle.

1.3 Timeline

The patient current timeline is fever spike, abdominal pain and abnormal urine output.

1.4 Diagnostic Assessment

Ultrasonography of scrotum done, Right testis 0.9 × 0.5 Cm and Left testis measure 1.1 × 0.8 Cm. Impression was undescended right testis (located as suprascrotal position).

Completed blood count was done with an abnormal finding is Hemoglobin 9.3 with total WBC is 13300, Red Blood Cell count 3.84, Haematocrit 28.4, Mean corpuscular volume 73.96, Mean corpuscular hemoglobin 24.22.

2. THERAPEUTIC INTERVENTION

2.1 Pharmacologic

Inj. Cefuroxime 500Mg IV [12 Hourly 100Mg/ Kg/ Day], Inj. Pantocid 10Mg IV [24 Hourly 1Mg/Kg/Day], Intravenous Fluid 500MI DNS + Inj. KCL 5MI [12 Hourly].

2.2 Surgical

A right-sided Orchiopexy procedure was done by the surgeon of AVBRH Hospital with general anesthesia.

2.3 Complication

Males who are born with undescended testicles have a higher risk of developing testicular cancer later in life. When the testicles are located in the abdomen rather than the scrotum, it can make diagnosis and treatment more difficult.

3. DISCUSSION

The most common malady in newborn male infants is cryptorchidism. Cryptorchidism's aetiology is mostly idiopathic and multifactorial, caused by disruptions in the developmental equilibrium [4].

Other congenital abnormalities of the male external genitalia are most likely in a boy with

undescended testes [5]. Until proven otherwise, male newborns with bilateral non-palpable testes should be considered genetically female with congenital adrenal hyperplasia. Congenital adrenal hyperplasia is a type of androgen production defect that occurs at birth [6]. A person with this condition is unable to produce the organs responsible for a developing foetus' sexual dimorphism. The stimulation of the hypophysiogonadal axis has been shown in several studies to influence the development of genital organs, which can lead to cryptorchidism [7].

The higher the position of the testes, the less effective stimulation of the HPG axis is in inducing descent; this effect could be attributed to the physiological barrier's limitation of influence against mechanical constraints. The precise role of androgen in testicular descent, on the other hand, remains unknown. Human chorionic gonadotrophin (HCG) secreted by the mother can stimulate the foetal testes to secrete testosterone, influencing gonadal development and descent. At 60 days after birth, the normal male with descended testes demonstrates the state of the transient increase in testosterone levels. In children with undescended testes, this testosterone response appears to be blunted. Children with undescended testes after 6 months of age should be considered for surgical correction because virtually all testes eventually descend without any medical or surgical assistance [8].

The most common long-term consequences of cryptorchid testes are decreased fertility and testicular tumour formation. Orchiopexy is a surgical procedure that is commonly used to move an undescended testis into the scrotum. It is typically performed on infants and young boys aged 6 to 15 months [9].

4. CONCLUSION

To preserve fertility and improve early detection of testicular cancer, early diagnosis and management of the undescended testicle are required. Physical examination of the testicle can be difficult; if a normal testis cannot be identified, consultation should be considered. Beyond one year of age, observation is not recommended because it delays treatment, lowers the rate of surgical success, and most likely impairs spermatogenesis. This case

report is a contribution to the knowledge of the disease of the testicle and its management.

CONSENT

While preparing case reports for publication patient's informed consent has been taken from parents.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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