



A Case Report on Diagnostic Laparoscopy with Left Orchidopexy.

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ABSTRACT:

A testicle can be moved into the scrotum or fixed there permanently by a procedure called an orchidopexy. While orchidopexy primarily refers to a surgical procedure to rectify an undescended testicle, testicular torsion can also be treated with this procedure. On a three-year-old kid, Thomas Annandale performed the first successful orchidopexy in 1887. 3% of neonates have underdeveloped testicles, although premature infants have the problem significantly more frequently. Given the short-term consequences (only 15-20% of retained testes descend) and potential long-term negative effects on spermatogenesis, hormonal therapy is not advised. The preferred course of treatment is surgery; orchidopexy has a 95% success rate in UDT and only a 1% complication rate. Case presentation: A 3-year-old male child brought with chief complaints of left empty scrotum, come for surgical management. As narrated by mother, child is apparently alright, actively has no complaints but came for surgical management of empty left side scrotum. No any history of fever spike, loose stools, pain in abdomen, vomiting, cough/cold. History obtains from mother empty scrotum present since birth. USG done-left testis could not be visualized. Advised for MRI. Paediatric surgeon advised diagnostic laparoscopy. Diagnostic laparoscopy with left orchidopexy was done. Post of IV fluids, INJ ceftriaxone, INJ pan top, INJ Emset, INJ Neomol was Given. Later IV fluids tapered. IV antibiotics omitted and oral cefixime, oral paracetamol given. Child is vitally and hemodynamically stable and hence is being discharged.

Keywords: Orchidopexy, undescended testicle, Two-stage laparoscopic, USG, Testicular atrophy, vas deferens.

INTRODUCTION

An undescended testicle is moved into the scrotum during an orchidopexy. The procedure to treat testicular torsion is often referred to as an orchidopexy. Recovery could take two or more weeks. In this exercise, the indications for orchidopexy are reviewed, and various procedures are discussed depending on where the abnormal testis is located. It also emphasizes the significance of the partnership between the patient, the caregiver, the paediatrician or primary care provider, and the paediatric surgeon in the treatment of infants and kids with cryptorchidism.¹

When it comes to full-term infants, cryptorchidism can affect up to 9% of them, while it can affect up to 30% of premature neonates. By the time a child is 3 to 6 months old, 80% of undescended testes (UDT) have moved into the scrotum. UDT (10%) can be bilateral or unilateral. 90% of those are palpable, and 80% are in the inguinal canal. Among patients, a concurrent patent processus vaginalis affects more than 90% of them.² Failure of the testis to spontaneously descend by the age of eight months and acute or intermittent testicular torsion are indications for this procedure.³ Prematurity, low birth weight, small size for gestational age, twins, and maternal estrogen exposure during the first trimester are all risk factors for cryptorchidism. 7% of brothers and sisters of males with undescended testes have cryptorchidism.

An orchidopexy can be done in a few different ways by a surgeon. If the testis cannot be felt, a laparoscopic technique is used. Depending on the laxity of the spermatic cord and testicular vasculature, this procedure may need one or two stages. A procedure known as an inguinal orchidopexy is used if the testis is in the inguinal canal. A scrotal approach is the preferred method when the testis is retractile or located at the top of the scrotum. Most often, only one testis is fixed and then left to heal, giving the patient a remaining viable testis in case the blood supply is cut off or an infection spread.⁴

Less than 10% of cryptorchid testicles are intraabdominal, yet they are the most difficult to repair. The two-stage Fowler-Stephens orchidopexy has become more well-known over the past 15 years. The typical method consists of an open inguinal orchidopexy followed by a laparoscopic or open procedure to cut the testicular veins.⁵

There are numerous serious problems specifically associated to orchiopexy in addition to the complications that come with every procedure (such as infection, bleeding, and scarring). Among them include testicular atrophy, Damage to the vas deferens or its ligation, the testis ascending.⁶

CASE PRESENTATION

A 3-year-old male child brought with chief complaints of left empty scrotum, come for surgical management. As narrated by mother, child is apparently alright, actively has no complaints but came for surgical management of empty left side scrotum. No any history of fever spike, loose stools, pain in abdomen, vomiting, cough/cold. History obtains from mother empty scrotum present since birth. USG done-left testis could not be visualized. Advised for MRI. Vitals: HR:102, RR-26, BP-95/64MMHG, SPO2-98%.

On admission, blood examination done HB 12.5, TLC 14900, PLT 1.59, LFT KFT within normal limits, PT 13, APTT 36.1, INR 1.09. Blood group O positive. paediatrics surgeon advised to do USG and MRI abdomen and pelvis which non visualisation of left testes in left scrotal sac, inguinal canal and visualised portion of pelvis -? Undescended testis/agenesis of testis. Paediatric surgeon advised diagnostic laparoscopy. Diagnostic laparoscopy with left orchidopexy was done.

STEP OF OPERATION: After induction of general anaesthesia. 8 foley's inserted after confirmation of urine flow balloon is inflated. Palpation done under GA but testes could not be palpated in any possible location. Under APP painting, draping and cleaning done. 10 mm umbilical port is inserted with open technique. 10fr 30-degree telescope inserted and intra-peritoneal location is confirmed. After that CO2 inflated and pneumoperitoneum created. On right side cord structure and blood vessels identified which is going through deep inguinal ring. Bladder is identified by foley's bulb. Left side deep ring was opened. Testes was visualised in abdomen near deep ring. Testes was identified and mobilised. size of testes approximately 1.5x1cm. cord structures identified. cord lengthening done. Testis brought to Subdartos pouch while maintaining orientation. Testis placed in Subdartos pouch. Incision of umbilicalport closed with vicryl 3-0 RB. Procedure went uneventful, patient shifted to ward.

Post of IV fluids, INJ ceftriaxone, INJ pan top, INJ Emsset, INJ Neomol was Given. Later IV fluids tapered. IV antibiotics omitted and oral cefixime, oral paracetamol given. Child is vitally and hemodynamically stable and hence is being discharged. Advice to patient family Review after 2 weeks to paediatric opd and paediatric surgery opd. **Treatment after discharge advice TAB JR Lanzol 15 OD For 5days, SYP PCM 250 sos, SYP cefixime 100 5ml for 5days, SYP zincovit 5ml BD For 30 days.**

DISCUSSION:

Some of investigator stated that 11 of the 15 patients had a testis that was intraabdominal, and 4 of the patients had bilateral cryptorchidism, which involved having one of the two testes intraabdominal. The first step was completed at a mean age of 32 months, and an average of 9.7 months passed between the two stages. 31 procedures were all completed as outpatients. There were just 2 complications: a scrotal hematoma and a first stage redo due to an unsuccessful clipping discovered prior to the scheduled second stage. 93.3% of attempts were successful (14/15). Every testicle is intra scrotal, and everyone except for one has retained its preoperative bulk.⁷

Fixing the testes into the opposing scrotal pouch through a window in the scrotal septum was first done by Ombredonne in 1927. Using a rubber band fastened to a silk suture, Cabot and Nesbit fixed the testes to the opposing thigh. Torek also advocated for attaching the testis to the thigh's fascia in 1931. This was first described by Shoemaker and then made popular by Lattimer. then, the testes were fixed through a defined plane between the dartos fascia and the scrotal skin, placing the testis in a subcutaneous position.⁸

Docimo SG examined the literature to compile the various success rates for orchiopexy published in 1995. After reviewing 64 studies in all, it was discovered that the success rates varied based on the primary testicular position and type of surgery used.⁹ When using the tans-inguinal technique, the sub-scrotal fat may also be used because it may help retaining the testes in the scrotal pouch, particularly when dealing with high undescended testes and more stress on the repair.¹⁰

Our study revealed that the majority of patients had delayed presentation, with 4 out of every 5 patients arriving after the recommended age of one year for orchidopexy. The time of presentation varied depending on whether there was/were accompanying malformation(s). Similar studies have been conducted in Zaria (north western Nigeria), Benin (south south), Aba (north eastern Nigeria), and Lagos (south western Nigeria), with median ages at presentations and orchidopexy of 6, 8.3, 6, and 3 years, respectively. The median age of 4 years at presentation is comparable to these studies. Patients presented reasonably early in Europe and Asia, where there is agreement on management guidelines, but the proportion was still far from the ideal of early management. This had been partially attributable to the referring/family physician's referral pattern being delayed. According to an Australian study, 16.6 months was the median age at orchidopexy. Despite the fact that these studies continue to reveal late presentations and surgery, there have been steady higher increases in the percentage of boys operated on within the recommended age range in areas where there is agreement on the treatment of undescended testes. As only one-third of our patients were referred by other medical facilities, late presentation in our centre could be attributed to ignorance of this pathology and nearly non-existent screening and referral protocols to the paediatric surgeon.¹¹

CONCLUSION

The two-stage laparoscopic orchidopexy has a low rate of short-term morbidity and is a relatively simple surgical treatment. A larger cohort of patients with long-term follow-up is needed to substantiate these findings.

A larger cohort of patients with long-term follow-up is needed to substantiate these findings. Patients with UDT are more likely to experience reproductive problems, both testicular malignancy and testicular torsion. There is a 40 times increased risk of testicular cancer in the UDT, and the contralateral testis, even if located in the scrotum, has about a 20% increased cancer risk compared to the general population. Patients with UDT are more likely to experience reproductive problems, both testicular malignancy and testicular torsion. Testicular cancer is 40 times more likely to develop in the UDT, and the contralateral testis, even if it is placed in the scrotum, has a 20% higher cancer risk than the general population.

CONFLICT: - The authors have no conflicts of interest to declare.

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