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Research Article

**ROLE OF LAPROSCOPIC SURGERY FOR THE  
MANAGEMENT OF UNDESCENDED TESTIS****\*Dr. Muhammad Maaz Ali, \*Dr. Allah Yar Khan, \*Dr. Bilal Ahmed Baig****\*Rawalpindi Medical College, Rawalpindi Pakistan****Abstract:**

**Objective:** To determine the importance of laparoscopic surgery in the management of un-descended testes.

**Design:** A retrospective descriptive study.

**Configuration and Duration:** In the Surgical Department of Holy Family and Benazir Bhutto Hospital, Rawalpindi for one year duration from June 2017 to June 2018.

**Method:** All patients between 7 months and 8 years who underwent laparoscopic surgery for un-descended testes were included in the study.

**Results:** 81 children (100 impalpable testes) were treated with laparoscopic orchidopexy. 40 (49%) of these patients had testes without implantation on the right side, 22 (27%) had left and 19 (23%) were bilateral. The median age was 13 months (7 months to 8 years) and the mean follow-up period was 12 months. Standard laparoscopic orchidopexy was performed in 64 cases, Fowler-Stephens in 10 cases and two stage Fowler-Stephens in 26 cases. During follow-up, the examination of the testicular position revealed a complete scrotal (59 scrotal abortions, 27 scrotal environments and 14 scrotal positions). In our study, only one testis was atrophied. These patients had a previous discovery history in another hospital. There was no single hernia at the one-year follow-up. In our study, 99 tests were followed and found to be feasible during a one-year follow-up period.

**Conclusion:** laparoscopic orchidopexy is a very successful procedure even in highly impalpable testes. The incidence of inguinal hernia is almost zero when using the inguinal canal to descend the testes, but the surgeon should be trained to do so.

**Key words:** laparoscopic orchidopexy, Un descended testis, 2-step operation, Fowler-Stephens.

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**INTRODUCTION:**

Laparoscopic orchidopexy was first described by Jordan *et al.* In 1992 and has since received considerable support. It is a very effective procedure for the management of impalpable testicles with highly successful scrotal positioning. Initially, Bloom used laparoscopy to bind sperm vessels as Stephen's procedure in the first stage, but the second stage was performed using an open approach. Surgical treatment of undesirable congenital testes is now the treatment of choice for up to 6 months. Generally, at the time of diagnosis, the testis is routinely inserted into the scrotum. The current surgical treatment of the implantable testis is usually performed by laparoscopic procedure. Single-port laparoscopic surgery is an option. In most of the laparoscopic orchidopexy, we removed the testicular muscle from the inguinal canal. Traditional laparoscopic orchidopexy technique recommends narrowing of the inner ring around the spermatic cord to prevent hernia. However, some surgeons reported that this was not necessary and we supported this in our study.

**MATERIALS AND METHODS:**

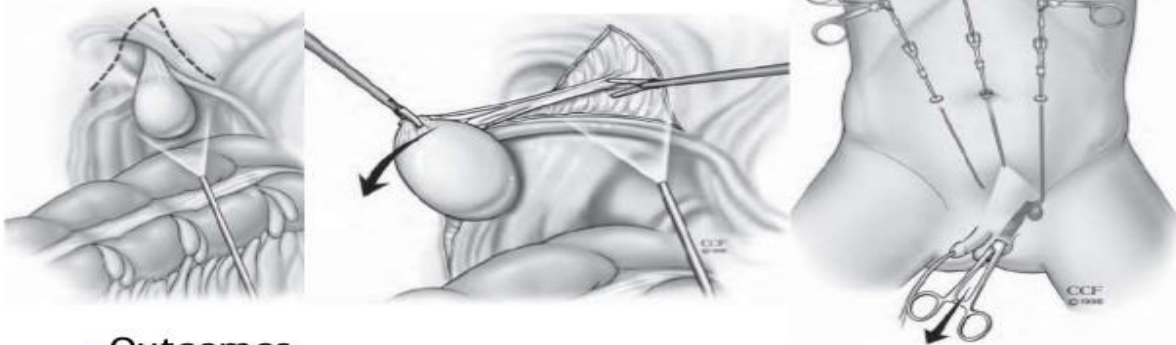
This retrospective descriptive study was held in the Surgical Department of Holy Family and Benazir Bhutto Hospital, Rawalpindi for one year duration from June 2017 to June 2018. All children undergoing laparoscopic orchidopexy were included in the study and their details were included in the predetermined program. Under general anesthesia, the stomach and bladder were decompressed before

surgery. The belly incision made by an open technique was placed with a 5 mm port. The peritoneal cavity was inflated with carbon dioxide up to a maximum of 14 mmHg. A general examination was performed after insufflation. Two additional troches were placed on the umbilicus level in the midclavicular line on each side of the abdomen. The government's attention was divided by keeping the canyon safe under the vision. The peritoneal coating of the spermatic vessels is cut laterally to release these vessels and provide additional length for activation of the testes. A small scrotal incision is made and a sub-aortic pocket is created. A clamp of the retrograde artery was inserted into the outer ring and inner ring, then mobilized testis was seen and then lowered to the scrotum. In order to prevent herniation of the vein, care should be taken not to over-expand the inner ring during the entry of the forceps; There was no need to sew around the inner ring.

**RESULTS:**

Eight hundred children with 100 impalpable testes were treated with laparoscopic orchidopexy. The median age was 13 months, the range was 7 months to 8 years. 40 (49%) had right implant test, 22 (27%) were left and 19 (23%) were bilateral. During laparoscopy, 62 cases had intraabdominal testes, 21 cases had iliac and 17 cases only has testes at just above the internal ring. The procedure was standard laparoscopic orchidopexy of 64 patients and 10 patients were included.

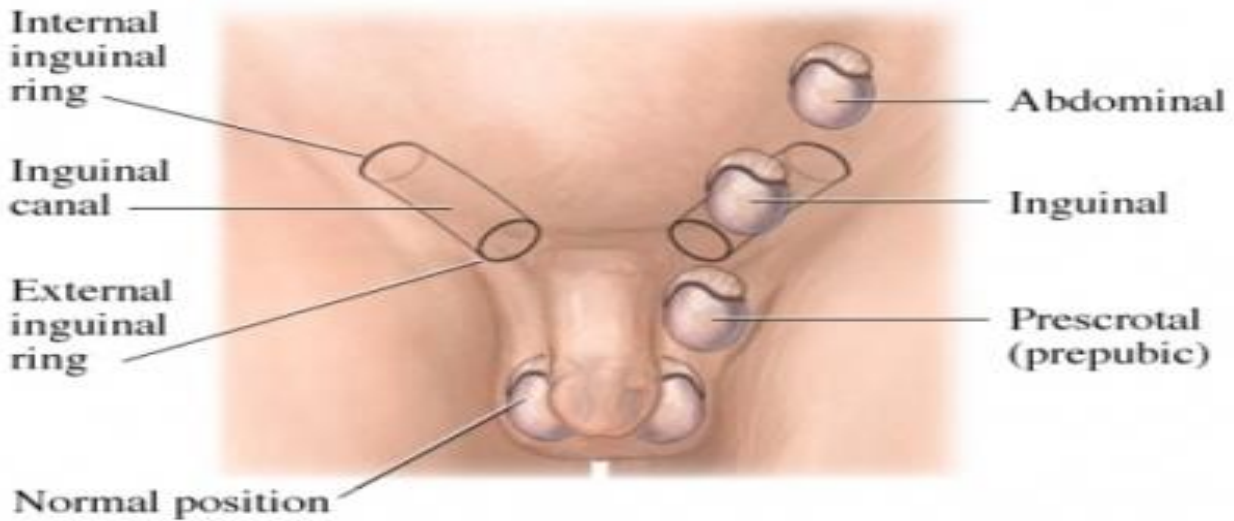
## Laparoscopic Repair

**• Outcomes**

- Success rate for testicular descent was 74% (65-100%) for orchiopey and 63% (60-97%) for Fowler-Stephens
- Testicular atrophy rate 2-22%

A study by Stephen Fowler and 26 of them performed Stephen Fowler's two-stage technique. The patients were

followed up for two weeks after the first follow-up and the mean follow-up was 12 months. These are the cases where we plan to perform the procedure of Stephen Fowler in the second stage, and we are taking them to the operating room after six months.



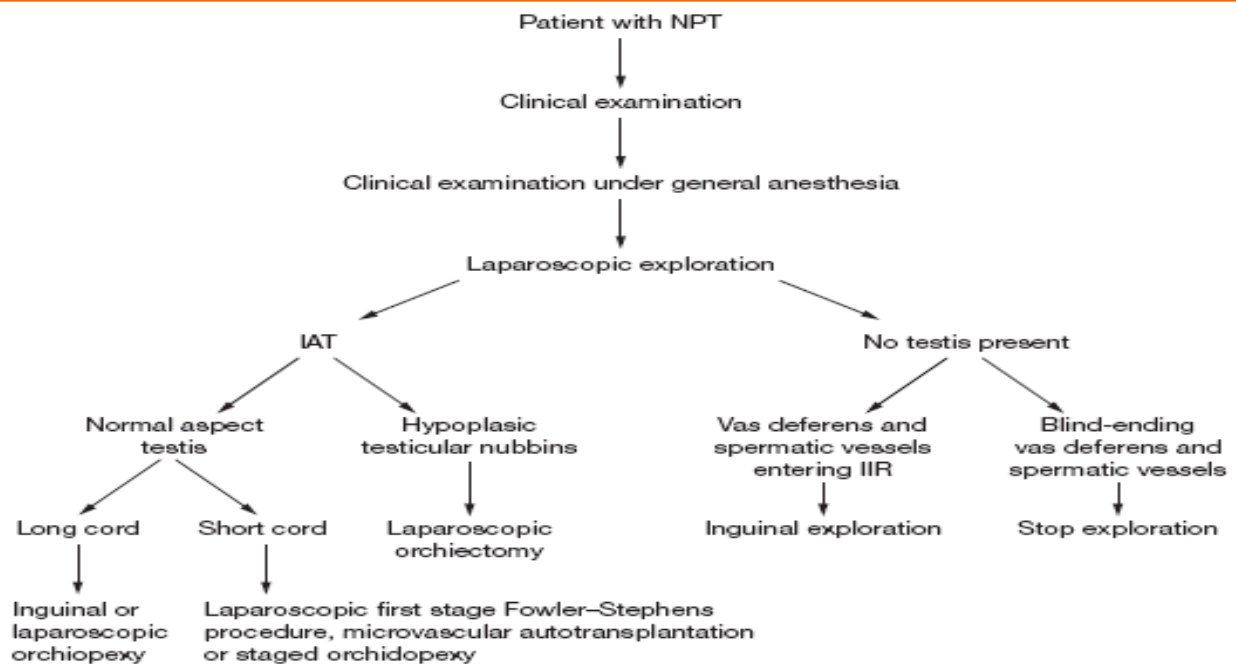
Only one case had atrophy in the testis and had a previous exploration history in another center. The overall success rate in this study is defined by two parameters; In addition to orchidopexy, with a good scrotal position without orthopedics and postoperative inguinal herniation. In our study, all testes were scrotal in position; 59 scrotal low, 27 scrotal environment and 14 scrotal high position. In a relatively long follow-up, no single case developed inguinal hernia.

### DISCUSSION:

Acquired cryptorchidism occurs mainly after 4 to 5 years of age, but early forms have also been accepted. Retractable tests tend to develop acquired cryptorchidism. For undescended congenital testes (UDT), it is recommended that orchidopexy be 6 to 12 months to maintain maturation of testicular germ cells. Early orchidopexy seems to be useful in the long-term testicular growth of congenital UDT.

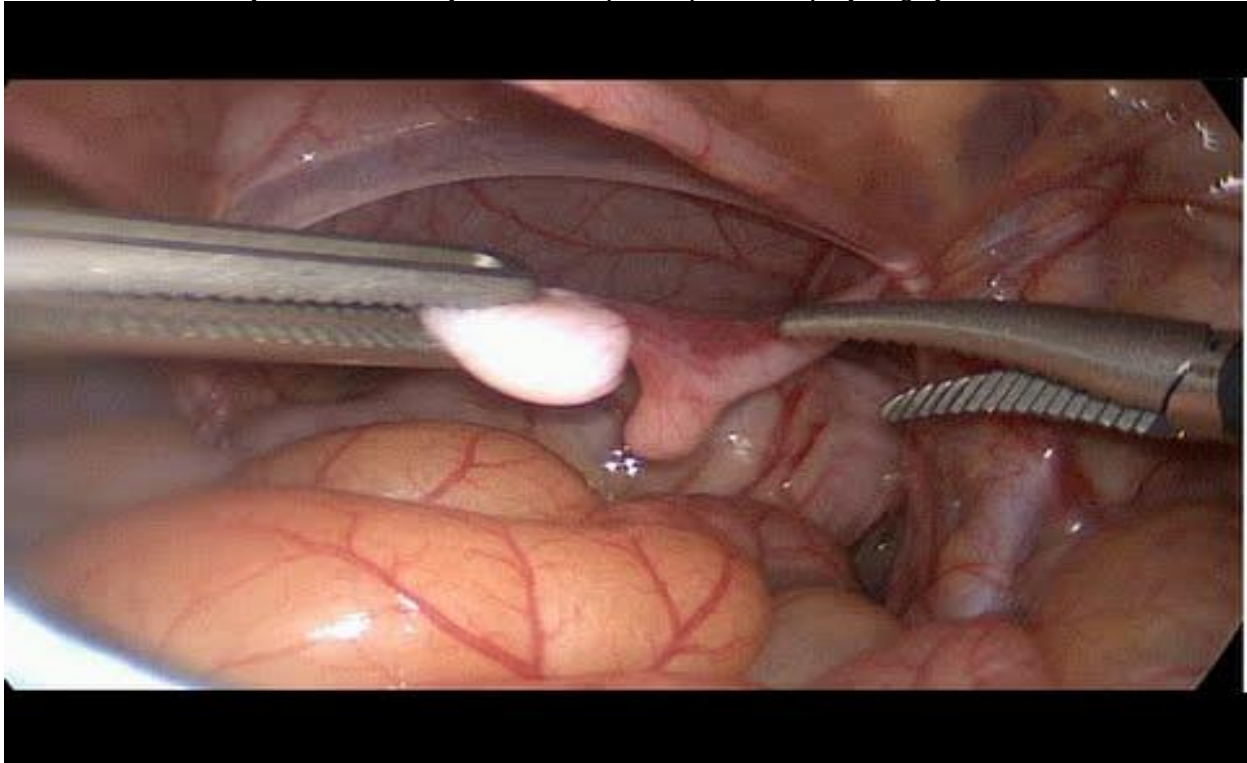
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Immediate surgical correction is usually routinely recommended at the time of diagnosis. Surgery itself can lead to complications such as direct damage to vas deferens or testicular veins. Recently, the age at which surgery was performed was accepted as a risk factor with a threshold of 13 years. It is unclear whether the risks of infertility and malignancy are similar to those of congenital cryptorchidism in acquired cryptorchidism. The risk of cancer in acquired cryptorchidism may be lower than in congenital cryptorchidism, as in acquired cryptorchidism. In addition, these testes may normally have a more favorable fertility potential, which is then descended, and then into a superficial inguinal bag. The overall success, defined as a testis without atrophy in the scrotum, is 74 to 92%, depending on the anatomical location of the testes prior to surgery. Some studies have shown that the tests were present in 6 of 12 patients and 10 of 13 patients, respectively, who had not previously discovered it. However, the success rate of laparoscopy is more than 90% and complications are rare. The factor that can contribute to high success rate in our study is that it is strictly adhered to laparoscopic orchidopexy surgery.



### CONCLUSION:

Laparoscopic orchidopexy is a treatment option for undescended testes and should be performed at 7 months of age. The larger the child, the less benefit it will bring the testicles to their normal position.

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