

# Five Years Follow-Up Study: Tension Free Versus Laparoscopic Hernioplasty

**Type:** Comprehensive Review  
**Received:** December 15, 2024  
**Published:** December 19, 2024

**Citation:**  
Igor Cerni. "Five Years Follow-Up Study: Tension Free Versus Laparoscopic Hernioplasty". PriMera Scientific Surgical Research and Practice 5.1 (2025): 37-39.

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## Background

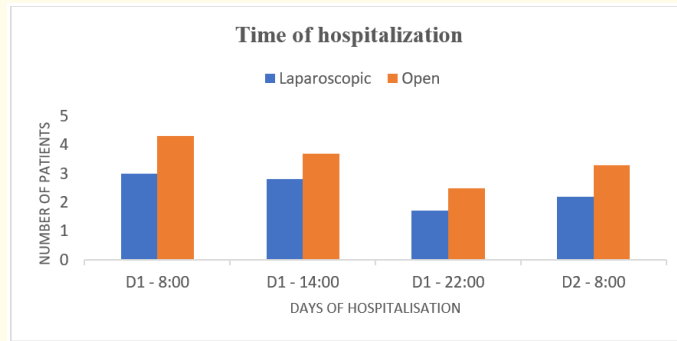
The main disadvantage of conventional Bassini hernioplasty is that it involves forceful approximation of the groin tissues associated with tension on the suture line, which leads to increased postoperative pain, longer hospital stay delay in resuming regular physical activity, and higher recurrence rate. New techniques of tension free repair have many advantages, including decreased tension, reduced postoperative pain, decreased analgesic consumption, faster return to normal physical activity and lower incidence of recurrence. Tension free techniques are divided into open (Trabucco) and endoscopic (laparoscopic TAPP and TEP). This study was undertaken to investigate the advantages and disadvantages of conventional and laparoscopic hernioplasty.

## Patients and methods

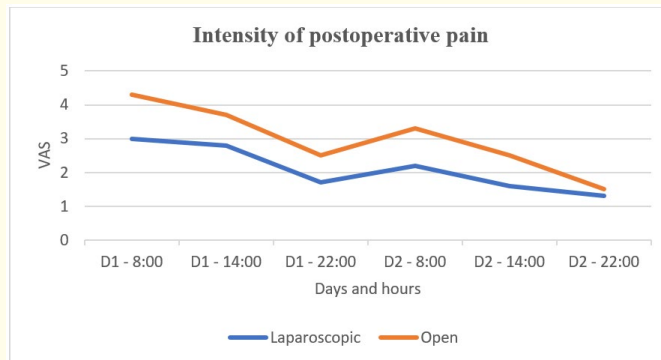
During the period 2018-2019, 28 patients, 24 men (85,7 %) and 4 women (14,3 %), underwent endoscopic hernia repair at our department. During the same period, the open tension-free technique was used in 423 patients, 388 men (84,9 %) and 44 women (10,2 %). The mean age of laparoscopic and open tension group was 55 and 52 years, respectively. The techniques were compared in terms of operating time, hospital stay, postoperative pain, analgesic usage, recurrence rate, return to normal physical activity, and complications. Follow up examinations were scheduled at one month, six months, one year and five years after surgery.

## Results

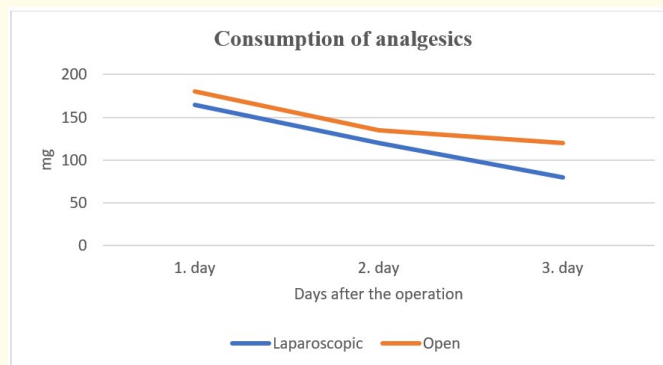
The operating time in laparoscopic hernioplasty is significantly longer than in tension-free hernia repair, yet there is no statistically difference between the two techniques as concerns the length of hospital stay. In patients undergoing laparoscopic hernia repair, return to normal physical activity was significantly less, analgesics during the first three postoperative days, and reported significantly lower level of pain assessed by the visual analogy scale. On follow-up examination at five years after surgery one recurrence (3,6 %) was found in both groups. There was no significant difference between the groups in terms of normal physical activity (Figures 1,2,3).



**Figure 1:** Time of hospitalization (p = 0,18).



**Figure 2:** Intensity of postoperative pain according to the visual analog scale (VAS) for the first two days.



**Figure 3:** Consumption of analgesics first days after the operation.

## **Conclusion**

Tension-free hernioplasty is the method of choice in the treatment of adult patients with groin hernia. Laparoscopic hernia repair has its advantages and drawbacks. It is considerably more expensive than the tension-free approach, but its use is fully justified in adults with hernia recurrence.