Short Term Outcome of Ilioinguinal Neurectomy in Reducing Chronic Pain after an Inguinal Hernia

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INTRODUCTION

Inguinal hernia surgery is one of the most common surgeries performed, and persistent postoperative pain is uncommon.¹,² Chronic pain is defined generally as pain lasting >3 months, but the studies on postoperative chronic pain often address the presence of pain several years after inguinal herniorrhaphy.³ The prevalence of groin pain after inguinal hernia repair has been reported to be 20–30%.⁴ When these pain syndromes occur, which can happen irrespective of the repair type performed, they cause enough disability for patients to seek therapies options ranging from nonsteroidal anti-inflammatory drugs to physical therapy and even to additional surgery (for neurectomy, neuroma excision, etc.).⁵,⁶ Routine excision of the ilioinguinal nerve in an attempt to decrease the incidence of chronic inguinodynia has been proposed,⁵,⁶ yet controversies persist, and the procedure is not widely accepted. Because nerve excision eliminates postsurgical pain caused by entrapment, inflammation, or fibrotic reactions around the nerve, there seem to be some theoretic benefit of this practice.⁷,⁸ Current research aimed to study the short term outcome of ilioinguinal neuronecrotomy in reducing chronic pain after an inguinal hernia

MATERIAL AND METHODS

This randomized controlled trial was conducted department of General Surgery, Government Theni Medical College and Hospital. Patients were selected randomly as per inclusion and exclusion criteria and divided into 2 groups. Patient informed consent was obtained before surgery. Inclusion criteria: Male patients admitted for unilateral inguinal hernia via Lichtenstein’s method were included. Exclusion criteria: a recurrent hernia, history surgery in abdomen, diabetes and other neurological problems. Neurectomy group patients underwent inguinal hernia mesh repair and neurectomy via Lichtenstein’s method. Nerve preserved group patients were underwent inguinal hernia mesh repair via Lichtenstein’s method with nerve preservation. Patients were followed for 6 months at day 1, day 3, day 7, 1 month and 6 months. Post-surgical analgesic medications were provided.

RESULTS

In this study, 40 patients were included in each group were studied at a different interval. Most of the patients were in between 31 to 40 years of age in both groups, followed by 41 to 50 years (figure-1). In our study 58% of patients underwent right indirect hernia. The least was of left direct hernia. The
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In recent years, the social evolution and professional interest in reaching higher levels of excellence have stimulated a change of attitude towards other indicators related to postoperative comfort and quality of life. Within this context, chronic pain following surgery has become the new center of attention for surgeons, embodied in the majority of studies and publications on inguinal hernias. Residual pain should be viewed as an essential endpoint when assessing the outcome of hernia surgery. Avalish and colleagues found chronic pain to be noted in 16% of patients during the presentation. In 38% cases, hernia extended up to inguinal canal, 38% cases a hernia extended up to the root of the scrotum and in 12% cases a hernia extended up to bottom of the scrotum. Visible peristalsis was observed in 8% participants. 24% cases had tenderness on palpation. VAS difference was observed from day 1, day 7 the pain was 0.48 ±0.3 in Neurectomy group and 1.98 ±0.2 in nerve preserved group, respectively. Mean VAS a month after surgery in the nerve-preserved group and in the nerve-excised group were 0.22 ±0.2 and 0.9 ±0.2, respectively. Mean VAS, six months after surgery in the nerve-preserved group and in the nerve-excised group were 0.1 ±0.2 and 0.28 ±0.4, respectively (figure-2, table-1). The incidence of hypoesthesia in the neurectomy group was 4%, nerve preserved group patients had 2% hyperesthesia at 6 months follow-up.

**DISCUSSION**

In recent years, the social evolution and professional interest in reaching higher levels of excellence have stimulated a change of attitude towards other indicators related to postoperative comfort and quality of life. Within this context, chronic pain following surgery has become the new center of attention for surgeons, embodied in the majority of studies and publications on inguinal hernias. Residual pain should be viewed as an essential endpoint when assessing the outcome of hernia surgery. Avalish and colleagues found chronic pain to be noted in 16% of patients during the presentation. In 38% cases, hernia extended up to inguinal canal, 38% cases a hernia extended up to the root of the scrotum and in 12% cases a hernia extended up to bottom of the scrotum. Visible peristalsis was observed in 8% participants. 24% cases had tenderness on palpation. VAS difference was observed from day 1, day 7 the pain was 0.48 ±0.3 in Neurectomy group and 1.98 ±0.2 in nerve preserved group, respectively. Mean VAS a month after surgery in the nerve-preserved group and in the nerve-excised group were 0.22 ±0.2 and 0.9 ±0.2, respectively. Mean VAS, six months after surgery in the nerve-preserved group and in the nerve-excised group were 0.1 ±0.2 and 0.28 ±0.4, respectively (figure-2, table-1). The incidence of hypoesthesia in the neurectomy group was 4%, nerve preserved group patients had 2% hyperesthesia at 6 months follow-up.

**CONCLUSION**

Neurectomy is an appropriate solution for reducing postoperative chronic pain following Lichtenstein inguinal hernia repair. This study recommends that Ilioinguinal neurectomy may be considered as a routine surgical step during open mesh hernia repair.

**REFERENCES**


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