ABSTRACT

Background and Objectives: Chronic post herniorrhaphy groin pain is defined as pain lasting for more than 3 months after surgery. It is one of the most important complications occurring after inguinal hernia repair and it occurs with greater frequency than previously thought. Majority of chronic pain has been attributed to ilioinguinal nerve entrapment.

Routine excision of the ilioinguinal nerve is an attempt to decrease the incidence of chronic groin pain caused by nerve entrapment, inflammation and fibrotic reactions around the nerve.

The purpose of the current study is to evaluate the effect of routine ilioinguinal nerve excision compared to nerve preservation on chronic groin pain and other sensory symptoms when performing Lichtenstein tension free inguinal hernia repair.

Method: A total of 60 patients admitted for inguinal hernia at Government Rajaji Hospital Madurai who met with the inclusion criteria underwent open mesh repair of inguinal hernia over the study period from August 2013 to August 2014. The ilioinguinal nerve was identified and preserved in 30 patients (group A) and elective division of the ilioinguinal nerve was done in 30 patients (group-B). Patients were evaluated for pain and other sensory symptoms at PoD-1, at one month, at three months, and at six months after surgery by using 4 point verbal scale.

Results: 50 of 60 patients completed the study protocol fully, 26 patients (25 men and 1 woman) with mean age 31±20 belonged to group A, and 24 patients (all men) with mean age of 39±14 belonged to group B.
The results of the follow up visits are 24 Vs 19 (p>0.05) at POD-1; 13 V s 10 (p>0.05) at 1 month; 10 Vs 2 (p>0.05) at 3 months; and 8 Vs 1 (p<0.05) at 6 months in group A and group B respectively. The mean severity score was 1.65±0.79 vs 1.37±0.92 at POD-1; 0.81±0.94 vs 0.42±050 at 1 month; 0.58±0.81 vs 0.08±0.28 at 3 months; and 0.39±0.09 vs 0.05±0.20 at 6 months in group A and group B respectively. There was significant difference(p<0.05) at 3 and 6 months.

The results showed no significant difference in the neurosensory disturbances in either Groups, that is, the incidence of hypoesthesia was 57.6% vs 62.%; 26.9% vs 37.5%; 19.2% vs 20.8%; and 11.5% vs 16.6% at POD-1, 1, 3, and 6 months in group A and B respectively. And the incidence of numbness was 19.2% vs 12.5%; 23% vs 25%; 15.3% vs 20.8%; and 11.5% vs 12.5% at POD-1, 1, 3, and 6 months in group A and B respectively.

**Conclusion:** The prophylactic excision of the ilioinguinal nerve during Lichtenstein mesh hernia repair decreases the incidence of chronic groin pain after surgery. Furthermore the procedure is not significantly associated with additional morbidities in terms of local cutaneous neurosensory disturbances. So when performing Lichtenstein inguinal hernia repair, routine ilioinguinal neurectomy is a reasonable option.

**Keywords:** Inguinal hernia; Groin; Lichtenstein; Polypropylene mesh; Herniorrhaphy; Ilioinguinal; Neurectomy; Mesh repair.