

# Study of patients with painless inguinal hernia in the quality of life

*N Subedi and Bhattacharya SK*

Department of Surgery, Nepal Medical College Teaching Hospital, Jorpati, Kathmandu, Nepal

**Corresponding author:** Dr. Neeraj Subedi, Department of Surgery, Nepal Medical College Teaching Hospital, Jorpati, Kathmandu, Nepal; e-mail: neerajsubedi@yahoo.com

## ABSTRACT

Inguinal hernias are one of the commonest surgical problems in our set up. It is a protrusion of abdominal cavity contents through the inguinal canal. This is a retrospective study done in the Department of Surgery, Nepal Medical College Teaching Hospital (NMCTH) from January 2009 to December 2010. During this period, 120 patients with painless hernia were enrolled in the study. The age range was from 30 years to 76 years with mean age of presentation at 53 years. Out of 120 patients who underwent mesh repair only 74 patients (61.7%) had visible hernia on standing and 46 patients (38.3%) had palpable impulse on cough. 90 patients (75%) were males and indirect hernia (53.3%) was more common than direct hernia. Out of 120 cases, 30 cases underwent inguinal neurectomy which on follow up had no pain at all. In other 90 cases, neurectomy was not confirmed from the operative note. In these 90 cases, 12 patients had mild pain and 10 patients had moderate to severe pain on 6 months follow up. To conclude, surgical repair is recommended for painless inguinal hernia as most of the patients develop symptoms over time and to avoid undue complications.

**Keywords:** Inguinal hernia, pain, mesh repair, neurectomy.

## INTRODUCTION

An inguinal hernia is a protrusion of a viscus or part of a viscus through the wall of its containing cavity. The two types of inguinal hernia, direct and indirect are defined by their relationship to the inferior epigastric vessels. Direct inguinal hernias protrude medial to the inferior epigastric vessels through the Hesselbach's triangle. Indirect inguinal hernias occur when abdominal contents protrude through the deep inguinal ring, lateral to the inferior epigastric vessels. Risk factors that increases intra abdominal pressure or weakens the anterior abdominal wall may lead to the formation of an inguinal hernia. Among the congenital and acquired inguinal hernia, the acquired variety is more common.<sup>1</sup>

Inguinal hernias are one of the commonest surgical problems in our set up. Repair of painless hernia is usually advised to prevent complications like gangrene, obstruction and strangulation.<sup>2</sup> Chronic post operative pain is one of the most common complications following hernia repair. It can significantly affect the patient's satisfaction and quality of life after the operation. Literatures have shown that the incidence of chronic inguinal pain was significantly lower in neurectomy group compared to nerve preservation group.<sup>2,3</sup>

Patients with inguinal hernia usually come to the Surgery Out Patient Department (SOPD) with lump alone and/or pain in the groin region. This study includes those patients with painless inguinal hernia to SOPD. This study aims in finding the profile and quality of life in regard to postoperative pain.

## MATERIALS AND METHODS

This is a retrospective study done in the Department of

Surgery of NMCTH from January 2009 to December 2010. All cases of painless inguinal hernia who presented in the SOPD were included in this study. Data including age, clinical presentation, related history, involvement (unilateral or bilateral) were noted.

The study analyzes collected data of a consecutive series of 120 patients submitted to inguinal hernia repair with open technique, under local/ regional anaesthesia. Inclusion criteria were: painless inguinal hernia (120 patients) and exclusion criteria were pediatric age group (4 patients), previous surgery /recurrence (6 patients), pain over the hernia (3 patients) and incarcerated hernias (3 patients).

Data analysis was done using statistical package SPSS version 12.

## RESULTS

Out of 136 cases of inguinal hernias in 2 years duration, 120 cases underwent surgery. The age range was from 30 years to 76 years with mean age of presentation at 53 years. Inguinal hernia was more common in males (90 patients, 75%) than females (30 patients, 25%).

Out of 120 patients, 74 patients (61.7%) had visible hernia on standing and 46 patients (38.3%) had palpable impulse on cough. 56 patients (46.7%) had direct inguinal hernia and 64 patients (53.3%) had indirect inguinal hernia. Bilateral hernia was seen in 18 patients (15%). Right sided inguinal hernia (78 patients, 65%) was more common than left sided hernia (42 patients, 35%).

All 120 patients were subjected to mesh repair. 30 cases underwent inguinal neurectomy (as retrieved from the operative notes). In the remaining 90 cases, neurectomy was not confirmed from the operative note. Of the 120 cases, in

92 cases, the sac was free and in 28 cases there were mild adhesions of omentum and small bowel to the sac.

6 patients (5%) had mild wound infection after the surgery which got controlled with dressing and antibiotics. 8 patients (6.7%) had mild scrotal swelling which subsided with scrotal support.

Patients were followed up for maximum of 6 months. All 30 cases who underwent neurectomy did not have pain on follow up. Out of 90 cases where neurectomy was not confirmed 12 patients (13.3%) had mild pain requiring no analgesics and 10 patients (11.1%) had moderate to severe pain requiring some analgesics.

## DISCUSSION

Inguinal hernia repair is one of the most frequently performed procedures in general surgery. Up to one-third of patients with an inguinal hernia have no symptoms from the hernia. Most patients with a painless inguinal hernia develop symptoms over time. Surgical repair is recommended for medically fit patients with a painless inguinal hernia.<sup>4</sup>

Inguinal hernia surgery has changed dramatically over the past one decade. In the modern era, the aim for painless hernia surgery is to avoid the complications like strangulation, obstruction and recurrence.<sup>5</sup> The challenge for surgeons is to significantly decrease the incidence of post operative chronic pain.

Our study showed the mean age of presentation at 53 years. Simliar findings were seen in studies done by Sakorafas et al and Dennis et al where the mean age of the patient were 53.7 years and 55.4 respectively.<sup>6,7</sup> However in a study done by Saeed et al, the mean age of the patient at the time of diagnosis is lower compared to our present study (35+/- 5 years).<sup>5</sup>

Different studies in different parts of the world have shown that the inguinal hernia is more common in males.<sup>1,8</sup> Our study also showed the similar finding.

Most of the patients with inguinal hernia present with visible swelling in the groin. Very few patients have impulse on cough. In our present study 74 patients (61.7%) had visible hernia. This finding is at par with findings of Abramson et al who has done a survey on inguinal hernia in western Jerusalem.<sup>8</sup>

Indirect inguinal hernia (64 patients, 53.3%) was more common than direct inguinal hernia (56 patients, 46.7%). Similar findings were seen in several other studies.<sup>5,6,9-11</sup>

In our study, bilateral inguinal hernia was seen in 15%. Nordback et al showed the incidence of 24.7% in his study.<sup>12</sup> Right sided inguinal hernia (78 patients, 65%) was more common than left sided hernia (42 patients, 35%). Other studies on inguinal hernia also showed the predominance of right side.<sup>5,8,12</sup>

Chronic groin pain is one of the most debilitating long term complications after inguinal hernia repair which can significantly affect the patient's satisfaction and quality of life after the operation. Recently, retrospective

studies have shown that excision of ilioinguinal nerve during hernia repair were associated with a lower incidence of chronic groin pain after the operation.<sup>3</sup> Out of 120 cases, 30 cases underwent inguinal neurectomy and on follow up after 6 months no patient had pain. Other 90 cases where neurectomy was not confirmed 22 patients (24.4%) had pain on follow up after 6 months. Similar finding was seen in a study done by Wilfred et al who has done double blind randomized controlled trial on prophylactic ilioinguinal neurectomy.<sup>3</sup> Significant decrease in the groin pain after neurectomy was seen in other studies as well.<sup>2,13</sup>

Surgical repair is recommended for painless inguinal hernia as most of the patients develop symptoms over time. Patients with pain at presentation are at increased risk of post operative pain after inguinal hernia repair. Prophylactic ilioinguinal neurectomy

decreases the incidence of groin pain after hernia repair and it should be considered as a routine procedure during hernia repair. Limitation of our study was small number of sample size and limited follow up period. Prospective studies on larger scale with longer follow up are warranted on the role of prophylactic ilioinguinal neurectomy in the quality of life of patients with painless inguinal hernia.

## REFERENCES

1. Chiow AKH, Chong CK, Tan SM. Inguinal hernias: a current review of an old problem. *Proceedings of Singapore Healthcare* 2010; 19: 202-11
2. Hokkam E. The effect of ilioinguinal neurectomy in elective inguinal hernia repair on chronic postoperative pain. *Egyptian J Surg* 2009; 28: 156-62.
3. Mui WL, Ng CS, Fung TM *et al*. Prophylactic ilioinguinal neurectomy in open inguinal hernia repair. A double-blind randomized controlled trial. *Ann Surg* 2006; 244: 27-33.
4. Chung L, Norrie J, O'Dwyer PJ. Long-term follow-up of patients with a painless inguinal hernia from a randomized clinical trial. *Brit J Surg* 2011; 98: 596-9.
5. Saeed BA, Rabee B, Aram FO, Abdulla A. Inguinal hernia repair by darning. *Yemeni J Med Sci* 2009; 3: 1-5.
6. Sakorafas GH, Halikias I, Nissotakis C *et al*. Open tension free repair of inguinal hernias; the Lichtenstein technique. *BMC Surg* 2001; 3: 1-3.
7. Dennis R, O'Riordan D. Risk factors for chronic pain after inguinal hernia repair. *Ann Roy Coll Surg England* 2007; 89: 218-20.
8. Abramson JH, Gofin J, Hopp C, Makler A, Epstein LM. The epidemiology of inguinal hernia- a survey in western Jerusalem. *J Epidemiol Community Health* 1978; 32: 59-67.
9. Shelley HJ. Incomplete indirect inguinal hernias- a study of 2462 hernias and 2337 hernia repairs. *Arch Surg* 1940; 41: 747-71.
10. Ralphs DNL, Brain AJL, Grundy DJ, Hobsley M. How accurately can direct and indirect inguinal hernias be distinguished? *Brit Med J* 1980; 281: 1039-40.
11. Al Khuwaller S. Inguinal hernia in Saudi Arabia: a 10 year experience. *Amer J Surg* 1985; 149: 691-4.
12. Nordback I. Side incidence of inguinal hernias. *Ann Chir Gynaecol* 1984; 73: 87-90.
13. Aasvang E, Kehlet H. Surgical management of chronic pain after inguinal hernia repair. *Brit J Surg* 2005; 92: 795-801.