

# Desarda Vs Lichtenstein “Hernioplasty” A One Year Comparative Study at a Teaching Hospital Lahore

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## ABSTRACT

*A comparative, prospective study was carried out in surgical department of LGH to evaluate the efficacy of Dessardahernioplasty technique by comparing with Lichtenstein repair in terms of post operative pain, hospital stay, rate of early and late complications and recurrence. Total (n=60) cases were divided in two groups A and B. with mean age 41.5 and 43.5 years for dessarda and Lichtenstein groups respectively. Insignificant statistical difference was noted in both groups as for as severity of acute pain, post operative hospital stay and wound infections are concerned. Regarding chronic pain and recurrence rate, patients in group A (Dessarda) show statistically significant advantage over group B (Lichtenstein). It, therefore was concluded that Dessarda-hernioplasty technique is useful in our patients as no foreign material has to be inserted that makes it cost effective with advantage of less chronic pain and zero recurrence rate at the end of one year.*

**Key words:** *Dessarda. lichtenstein. hernioplasty.*

## INTRODUCTION

Though the subject of herniology has been attracting the surgeons since the Egyptians rules over the world<sup>1</sup> but serious attempts to solve the issue of repair and recurrence were made by the Italians and Frenchs in 17<sup>th</sup> century.<sup>2</sup> After the description of anatomy of the inguinal canal by Astleycooper, workers like Adoardo Bassini, Mcvey, Shuoldice and Rennestoopa, performed tremendous work on the subject in eighteenth and nineteenth centuries.<sup>3</sup> Tention free mesh hernioplasty by Liichtenstein in 1986 became the gold standard.<sup>4</sup> At the same time workers like Marcy, Halsted, Ferguson and Tanners in late nineteenth and early twentieth century disagreed with the concept of inserting artificial material in human body. They, rather, advised use of patients own tissue for the repair of hernia.<sup>5,6</sup> In 2001 Mohan P. Desarda advocated a modification of Darcys repair in which he used an undetached strip of patients own apponeurosis to enforce the posterior wall of inguinal canal by maintaining shuttering mechanism. He claimed a recurrence of less than 1% in his

series of 200 cases.<sup>7</sup>

The purpose of this study was to evaluate the usefulness of Desarda technique by comparing it with that of gold standard Lichtenstein technique.

## METHODS AND MATERIAL

Patients admitted form OPD with diagnosis of inguinal hernia, after taking detailed history and performing clinical examination were enrolled in study after taking informed consent. All the cases with complicated hernias and with co-morbid ailments were excluded. All patients on consecutive nonelected bases were placed in to two groups A (Desarda) and B (Lichtenstein).

Acute pain (at 12, 24,36, and 48 hours) and chronic pain (after 6 weeks) were calculated by visual analogue scale (VAS), wound infection was assessed by Southampton scoring system, and post-operative hospital stay were entered in a proforma. Recurrence was assessed after one year follow up. All results were analyzed by a statistician using IPSS 11.

## RESULTS

A total of 60 cases were entered in this prospective study from Jan. 2014 to Jan. 2015.

Patients were divided into two groups A (Desarda) and B (Lichtenstein) therefore each group was having 30 patients.

In The Patients Of Group A, the mean age was  $43.50 \pm 13.65$  (p value = 0.374) with a post operative hospital stay OF  $1.27 \pm 0.888$  days. As for as pain was concerned 5 patients (16.7%) complained of severe pain in first 12 hours while rest (n = 25 (83.3%) complained of moderate pain. At the end of 24 hours 93.3% (n = 28) of the patients were having mild while rest 6.7% (N = 2) still complaining of moderate degree of pain. After 48 hours only 1 patient (3.3%) complained of mild degree of pain.

At the end of 3 months follow up 1 patient again was complaining of mild pain in groin area while rest (N = 29) did not having any discomfort.

One (3.3%) out of 30 patients observed grade 2 wound infections and in 2 cases (6.7%) grade 1 wound infection was noted while rest of 90% cases recovered uneventfully.

Not even a single recurrence was noted at the end of one year in this group.

In group B (Lichtenstein) mean age remain 43.93 years ranging from 22 to 65 with mean hospital stay of 1.37 days (SD = 1.13) 13.3% (n = 5) patients complained of severe pain at 12 hours while 86.7% (n = 26) we having complain of moderate pain. Only 3 patients (10%) complained of moderate and 27 of mild discomfort at the end of 24 hours. 3 cases were observed having moderate pain at the end of 48 hours as well. 26.7% (n = 8) patients complained of chronic pain after 3 months.

One recurrence was noted in this group at the end of one year.

## DISCUSSION

Inguinal hernia repair has been the most common surgical operation being performed the world over.<sup>8</sup> Every fourth male is a hernia patient at least once in his life.<sup>9</sup> The age ranges from 21 to 63 years in this study is comparable with that of multiple local and international studies.<sup>10</sup> The magnitude of pain in both groups during first 12, 24, and 36 hours intervals is statistically insignificant.<sup>9</sup> Though Dr Desarda himself in his original article in 2008 is of the opinion that 94.3% of the patients with Desarda technique complain of mild

pain during first 48 hours post operatively.<sup>8</sup>

At the end of 3 months patients of group A. have a statistically significant advantage over group B patients as for as the chronic pain is concerned because only one patient (3.3%) in group A complained of chronic groin pain as compared to that of eight (26.7%) patients in group B. workers like Pzupinsky and Debrovickei in their study of 308 cases in 2012 mentioned that the chronic pain in Desarda technique (4.8%) is bit higher than that of Lichtenstein (2.9%). Mitura et al in 2008 and Pzupinsky et al in 2013 are of the opinion that at the end of three months the magnitude of pain in both groups is statistically insignificant.<sup>11</sup> Situma et al in 2009 carried out a comparative study in which they compare the pain magnitude between Desarda and Bassini repairs and they were of the opinion that there was no significant difference.<sup>8</sup>

Post operative wound infection in both groups is similar which is comparable with the studies of Maniyilrah et al in 2012 and similar results were depicted by szupinsky et al in 2013.

Recurrence rate at the end of one year was higher in group B (3.3%). INTERESTINGLY IN GROUP A there was no recurrence. Among the workers who have been performing Desarda and Lichtenstein operations regularly only szupinsky reported two recurrences in each group in his study of 308 cases at the end of three years. Higher rate mentioned by this worker probably was the result of prolonged follow up.<sup>12</sup>

## CONCLUSION

It was concluded that Desarda technique of inguinal hernia repair in our set up is useful with comparable results to gold standard Lichtenstein hernioplasty.

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