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Review

# Is Shouldice the best NON-MESH inguinal hernia repair technique? A systematic review and network metanalysis of randomized controlled trials comparing Shouldice and Desarda

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## Highlights

- Analysis of results of the new tissue repair technique for groin hernia surgery: the Desarda technique.
- Comparison by network (indirect) meta-analysis of tissue repair techniques Desarda and Shouldice.
- Evidence of the effectiveness of tissue repair techniques for groin hernia surgery.

## Abstract

## Background

Current guidelines state that the Shouldice technique has lower [recurrence rates](#) than other suture repairs and therefore is strongly recommended in non-mesh [inguinal hernia](#) repair. Recently a new [tissue repair](#) technique has been proposed by Desarda and studied in trials against Lichtenstein technique.

## Methods

The present study was performed according to the PRISMA Statement for [Network Meta-analysis](#) and the AMSTAR 2 checklist. The method of network meta-analysis was chosen to evaluate randomized controlled trial published on tissue repair and comparing Lichtenstein respectively with Desarda and Shouldice techniques. The following parameters: [operative time](#), [recurrence](#), complications (general, intraoperative, Surgical Surgical Site Occurrences), VAS score on postoperative day 1, [numbness](#), [chronic pain](#) and return to daily activities.

## Results

Fourteen RCTs, involving 2791 patients, fulfilled the inclusion criteria and were selected for final analysis. The anchored indirect treatment comparison showed that Desarda's technique requires a significantly shorter operative time (MD: -12.9 min; 95% CI: -20.6 to -5.2) and has a [quicker](#) recovery (MD: -6.6 days; 95% CI: -11.7 to -1.4). Outcomes concerning [intraoperative complications](#), early [postoperative pain](#), seroma/hematoma, [hydrocele](#) and [infection rates](#), recurrence, numbness and chronic pain were similar among the two techniques.

## Conclusions

Desarda's [hernia repair](#) can be a valuable alternative to Shouldice technique for the treatment of primary inguinal hernia repair if a non-mesh technique is chosen, because of its [reproducibility](#) and quicker [postoperative recovery](#). We recommend performing well designed prospective studies comparing both techniques directly.

[<](#) Previous

Next [>](#)

## Keywords

Inguinal hernia; Groin Hernia; Lichtenstein; Desarda; Shouldice

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