

*Personal Communications***SURGICAL MANAGEMENT OF INGUINAL HERNIA**

(Prolene darning: A short experience at Bharatpur Hospital)

DYahun Chandra Sibakoti*^S**Abstract**

Inguinal hernias are common surgical problem. There are various techniques for its repair. This retrospective study focuses on darning with prolene at Bharatpur Hospital and a private nursing home in Chitawan. There were 463 cases of both direct and indirect hernias operated over a period of 7 years (1999- 2006). Most of them were repaired by prolene darning 88%. The result was impressive with no recurrence so far. It is a cheap alternative to Lichtenstein repair.

Keywords

Inguinal hernias, prolene, darning, Lichtenstein mesh.

Introduction

"I know more than a hundred surgeons whom I would cheerfully allow to remove my gallbladder but only one to whom I should like to expose my inguinal canal".¹

- Sir Henage Ogilvie

Inguinal hernias are common surgical encounters in day-to-day surgical practice. This is one of the common operations one has to perform in general surgery.^{1,2,8} The art of hernia repair is learnt at medical schools and

among various methods and techniques one has to learn all but only few methods are usually practiced in routine surgical procedures. In my surgical career most of the time I preferred to knit a darn from Prolene making a tension-free repair with good result.

Types of Hernia Repair

There are several techniques for open hernia repair.

- I. **Bassini Repair:** In this operation conjoined tendon is sutured with the Inguinal (Poupart's) ligament with interrupted sutures using nonabsorbable monofilament sutures (prolene, nylon).^{1,3,5}
- II. **MacVay Repair:** In this operation conjoined tendon is sutured with the Cooper's Ligament.^{1,2}
- III. **Shouldice Repair:** This operation emphasizes a multi-layer, imbricated repair of the floor of the inguinal canal with running suture.^{1,4,6}
- IV. **Lichtenstein Repair:** In this operation a non-absorbable mesh (usually prolene) is used to strengthen the posterior wall of the inguinal canal. The mesh is sutured

along the inguinal ligament and conjoined tendon.^{1,2,7,8}

- V. **Prolene Darning:** Here, in this hernia repair, the posterior wall of the Inguinal Canal is strengthened by making a fishing-net like structure with a non-absorbable suture (prolene) in-between inguinal ligament and the conjoined tendon.^{2,5,6,7}

Result & Discussion

From August 1999 to March 2006 over a period of nearly 7 years we have performed 463 herniorrhaphies for both direct and indirect inguinal hernias at Bharatpur Hospital and at a private nursing homes. In 37 hernias we went for Bassini repair, few cases, only 16 were repaired with Lichtenstein (prolene mesh) repair, other remaining 410 cases underwent prolene darning.

Lichtenstein repair is the most popular and said to have the lowest recurrent rate world wide^{6,7,8} but we could afford in only in few cases due to its high cost. A single thread of prolene no.1 (non-absorbable suture) knitted in a fine fishing-net like structure with little skill and craftsmanship can reduce the cost of operation dramatically with equivalent result as we hope to get from Lichtenstein repair.^{5,6,7} This operation is usually done under local or spinal anaesthesia.

When, we started doing herniorrhaphy for both direct and indirect inguinal hernias at Bharatpur Hospital, none of the theatre staff has ever seen knitting a darn out of prolene thread and many were suspicious about the outcome. Some even doubted and expected

recurrence very soon. During my 7 years tenure, as a general surgeon, we never encountered recurrence of hernia following prolene darning, in our operations, although 7 years of evaluation time is too early to forecast the method as a successful one. But we believe that darning with prolene is a reliable method of hernia repair with good outcome and comparable to the Lichtenstein repair.^{7,8}

Recurrence of inguinal hernias are estimated in-between 1 to 7 %, little more for direct hernias and even greater for operation on recurrent hernias.¹ The least recurrence rate is associated with the Lichtenstein repair, which is 1 to 5% after 5 years.^{2,5,8}

Conclusion and Acknowledgement

I am grateful to my teachers/preceptors for kindly sharing this skill to me when he was in Nepal during my surgical residency in Bir Hospital. In our poor country where surgical services are urban-oriented and vast majorities have very low paying capacity, prolene darning will be a cheap alternative to Lichtenstein repair. I hope and recommend this simple technique will be taught to all surgical resident doctors in our teaching hospitals.

These days laparoscopic hernia repair is gaining momentum with variable success rates. Little pain, less morbidity, small incision that provide good cosmesis, early return to work and early return to normal activities has attracted many surgeons including those working in our Bir Hospital. I would like to urge my fellow surgeons not to forget this simple and low-cost alternative to

our poor indigent population with low affordability of high-tech stuff.

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