

A PROSPECTIVE STUDY OF ADULT INGUINAL HERNIA REPAIRS IMPLEMENTING A NEW TECHNIQUE OVER A 5-YEAR PERIOD

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A study was conducted over a 5 year period to determine whether adult inguinal hernia repair could be safely performed with plication of the transversalis fascia and approximation of the conjoint tendon to the inguinal ligament behind the spermatic cord using size 1 polypropylene with reference recurrence rates, wound pain, haematoma formation, wound infection, testicular complications, vas deference injury, bowel injuries, nerve injury and post herniorrhaphy paravesical, suture granuloma formation. Analysis is available for 283 operation involving 270 patient. Follow-up range was 12-60 months. In post operative period no wound infection or other complications were noted. Use of postoperative analgesia was minimal, usually one or two injections of Diclofenac. There has been one recurrence. Preliminary results suggest that hernia repair by plication of the transversalis fascia and approximation of the conjoint tendon to inguinal ligament is comparable to multilayered shouldice operation in terms of recurrence and associated wound complications. Mesh repairs are increasingly preferred these days in effective inguinal hernia repairs. Large study as well as a longer follow-up period is required to verify the results.

Key words: Inguinal hernia, transversalis fascia, repair.

INTRODUCTION:

Inguinal hernia are common and constitute a major part of the general surgical workload of our Army Hospital. The variety of hernia repairs employed by surgeons are different. Now, the shouldice technique is considered as 'gold standard' for inguinal hernia repairs as this operation is one that reconstitutes the functional anatomy of the inguinal canal without suture tension but many surgeons still perform this operation with some modifications.

A two layered operation also give comparable result and it is simpler and easier to perform technically. A prospective study was therefore performed to determine whether the two layered methods of plication of the transversalis fascia and approximation of the conjoint tendon to the inguinal ligament is comparable to Shouldice operation. Preliminary result are promising. It is intended that the follow-up of the study will be continued for 10 years.

PATIENTS AND METHODS:

270 patients undergone adult inguinal hernia repair over a 5 years period and these patients were studied. A two layered method of adult inguinal hernia repair by plication of the transversalis fascia and approximation of the conjoint tendon to the inguinal ligament behind the spermatic cord using no 1 polypropylene was the technique used for study. All operations were performed either by spinal anesthesia or general anesthesia. At the time of discharge, patients were assessed with respect to wound complications. All patients were reviewed during study period from 2049-2054 BS.

RESULTS:

270 patients were included in the study. They underwent 283 operations. There were 268 males and two females. The age range from 18-84 years. 23 hernias were recurrent hernias. At operation there were 235 indirect hernias and 22 direct hernias. Elective surgery was performed in 264 patients and emergency surgery on six patients due to Strangulation or incarceration & patients had 12-60 months. No haematoma or wound infection were noted. There has been one recurrence after 2 years of surgery. All surgical operations were performed by me. All patients were sent to full duties after 3 weeks of surgery. Only few patients were returning to surgical out patient for extension of line sick. A strangulated hernia presented lately and they belonged to either family or ex-serviceman. These patients were operated immediately after their arrival to Army Hospital.

DISCUSSION:

The greatest contribution to inguinal hernia surgery was that of the Italian surgeon Edoardo Bassini, He first performed modern herniorrhaphy in 1884. Since then various techniques were developed for inguinal hernia repairs. In the past 20 years Shouldice technique is considered as the method of choice for inguinal herniorrhaphy. The Shouldice technique is not the only gold standard repair. The ideal hernia repair operation is one that reconstitutes the functional anatomy of the inguinal canal without suture tension. The Shouldice technique allows such anatomical repair but this method is rather complicated, not suitable for all hernia patients and in some cases calls for extensive dissection and suturing under tension. Plication of the transversalis fascia and approximation of the conjoint tendon to the inguinal ligament is simple technique, tension free repair, cost effective and time saving functional anatomical repair. This technique also tightens the weakened relaxed transversalis fascia and stretched internal ring of the inguinal canal with strengthening posterior wall of the inguinal canal. However it must be emphasized that the current period of follow-up is short and the longer follow-up is required to draw definite conclusion from its study.

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