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Research Article

**A COMPARATIVE STUDY ON EFFICACY OF DARN
REPAIR AND BASSINI REPAIR FOR INGUINAL HERNIA IN
DISTRICT HEAD QUARTER HOSPITAL GUJRAT**¹Dr.Raja Khalid Shabbir ²Dr.Mohsin Raza Minhas, ³Dr.Nausher Tahir¹Foundation University Islamabad²Foundation University Islamabad³Foundation University Islamabad**Abstract:**

Objective: The objective of the study was to relate the results of Bassini vs. Darn inguinal hernia healing techniques in relation of postoperative pain, infection level, hospital stay, recommencement of duty and relapse. **Study Design:** A randomized organised study. **Place and Duration of Study:** This study was accompanied at the Department of Surgery, DHQ hospital Gujrat from January 2015 to January 2016. **Materials and Methods:** In our study, 60 patients having inguinal hernia were nominated for the trial from both sexes. After detailed investigations, they were casually assigned into two groups, 30 (group 1) of these were operated and repaired by the old Bassini repair and 30 (group 2) patients underwent darn repair. Patients were followed up at one week, six weeks, six months and one year and any difficulties were noted. **Results:** Age range of patients was among 20-60 years. The patients were operated under general anaesthesia. In Group One, 7 patients required intramuscular analgesics, their hospital stay was for 5 days, recommencement of duties after 4-5 weeks & reappearance after 1Year was 0%. In group 2, 5 patients required intramuscular Analgesics, mean hospital stay was 4-5 days, recommencement of duties after 4 weeks & reappearance after 1Year was 0%. **Conclusion:** Darn repair of inguinal hernia is tranquil, inexpensive, pain free and having minor chances of recurrence.

Key Words: Inguinal hernia, Darn repair, Bassini**Corresponding author:****Dr. Raja Khalid Shabbir,**
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INTRODUCTION

An Inguinal hernia is a subsequent of some kind of tissue protrusion such as that of intestine etc. This lump takes place through a weak spot within abdomen. This buldge is more aching at the time of coughing, bending over or at the time of lifting some weighty substances. Inguinal hernia is not precarious all the times yet produces life threatening complications some time. The painful or expanding hernia can be made fix through surgical treatment. So surgical procedure is a common procedure used for its management.¹ Risk factors for the development of a hernia comprise: smoking, chronic obstructive pulmonary disease, fatness, pregnancy, peritoneal dialysis, collagen, vascular disease, and preceding open appendectomy, among others [1,2].

Inguinal hernia has two kinds, Direct and Indirect. The direct inguinal hernia arrives through a weak point in the front of the abdominal wall, and its sac is noted to be medial to the inferior epigastric vessels. Direct inguinal hernias may happen in males or females, but males are ten times more expected to get a direct inguinal hernia [3]. Indirect inguinal hernia fallouts from the failure of developing termination of the deep inguinal ring after the testicle has passed through it. Similar to other inguinal hernias, it protrudes through the artificial inguinal ring. It is the most communal cause of groin hernia [4].

In 1987, a classification was familiarized by Gilbert for repairing hernia. Four simple techniques/procedures were presented for [5] pure tissue repair, combined tissue and prosthetic repair, pure prosthetic repair and Darn repair were the categorized methods. Shouldice method showed good results but British method of nylon darn has better succeeding rates in preservative deep groin anatomy [6].

The darn repair of groin hernias is a pure tissue repair and is one of the typical open herniorrhaphies. It is simple, generally applicable to primary and persistent hernia repairs, and has an extraordinarily low reappearance rate. In a 1991 survey of 240 specialist surgeons in England, the darn repair was the most widespread technique; 35% of surgeons used it as their solitary method of repair [7]. The Shouldice operation alone or combined with other methods was used by only 20% [8]. Inguinal, femoral and abdominal hernias lead to 51,000 deaths in 2013 and 55,000 in 1990 [9].

MATERIALS AND METHODS:

60 patients were included in our study that was conducted in surgery department of DHQ teaching hospital Gujrat and in private practice setting.

Study period comprised of one year i.e. from January 2015 to January 2016. We compared darn repair with bassini repair technique in subjects having inguinal hernia. Two groups were designed, one for darn and one for bassini repair. All 60 patients were divided randomly in these two groups. The complications before and after surgical procedure, hospitalization time duration and operative procedure time was documented. Follow up to these patients was given for 1Year after surgical procedure and the complications were noted. Patients were equally divided into 2 groups keeping in view their age, sex and weight etc. Antibiotics were administered to all the patients in both groups.

Exclusion measures were diabetes, long-lasting obstructive airway ailment, steroids intake etc. Patients suffering associated inguino-scrotal diseases as hydrocele and spermatocele were omitted from the study. Patients with an age between 16 to 60 years were deliberated for the study.

Bassini repair was found to be the classic one. Opening of the inguinal canal was done followed by the lifting of spermatic cord followed by suturing of the inferior edge of interior slanting and transversus muscles to the inguinal tendon with interavallic nurolon. In situation of tension on repair, tanner slide was incorporated. The cord was positioned on the recently shaped subsequent flooring. Continuous chromic catgut No 1 was used for suturing the external oblique. Scarp fascia was clogged by catgut followed by closing of the skin using skill no 2/0.

The darn repair was done with the help of a polyamide monofilament thread that was commercially available. The darn was completed in 2 layers, starting at the pubic tubercle, suturing was done in between the conjoint tendon and conjoint muscle to inguinal ligament. Half hatch was used to lock each stitch. The cord was positioned on the darn. General anesthesia was given to patients in both groups.

Base line investigations were carried out for all patients. Post-operative and systemic complications were also recorded.

Patient's examination was done at an interval of a week, a month, 3 and six months and even for 1 year to observe wound infection, sinus formation, pain in scar, atrophy of the testis, sexual abnormality, hydrocele and reappearance of hernia.

RESULTS:

The study included 60 patients. Age range was between 16-60 years. The patients were operated

under common anesthesia. In group one, 7 patients' required intramuscular analgesics mean hospital stay was 5 days, recommencement of duties after 4-5 weeks & reappearance after 1year was 0%. In group two, 5 patients required intramuscular

analgesics, mean hospital stay was 4-5 days, resumption of duties after 4 weeks & recurrence after 1Year was 0%. Results are shown in the table 01.

Table No. 1; Age distribution

Patient's age	Patient's No	Percentage
16-20	08	13.34 %
20-30	25	41.67 %
30-40	05	8.34 %
50-60	12	20.0 %

Patient's method of introduction is shown in the accompanying table 02.

Table No. 2; Mode of presentation

Mode of Presentation	No of Hernias	Percentage
Swelling inguinal/inguinoscrotal	60	100
Reducible Hernias	50	93.34
Irreducible Hernias	10	16.67
Painful Hernias	30	50.00
Pain free Hernias	30	50.00

Side of hernia either right or left is given in the table 03.

Table No. 3; Hernial side

Hernial side	No of patients	Percentage
Right	26	43.34
Left	28	46.66
Bilateral	06	10

Sort of hernia and finish/inadequate hernia's detail is given in table 04

Table No. 4; Type of heria, finish/inadequate hernia

Hernia type	No of patients	percentage
Indirect inguinal hernias	45	75
Direct inguinal hernias	14	23.34
Pantaloon hernias	07	11.67
Complete Hernias (Inguinoscrotal)	26	43.34
Incomplete Hernias	34	56.67

The repair of the damage was correlated with an average agent time of 40 minutes, although the repair of the bass was related to 45 minutes. We have seen that there was no revolutionary fluctuation of agent time in the two methodologies. For the patients, at the beginning of their normal

lighter activity, it took a week, while in the repair of the garbage, the arrival of the patients to their exercise routine was a bit extracted from a groin that was dying. The return to the intense work done was almost a month and a half in both collection patients.

Below are the difficulties:

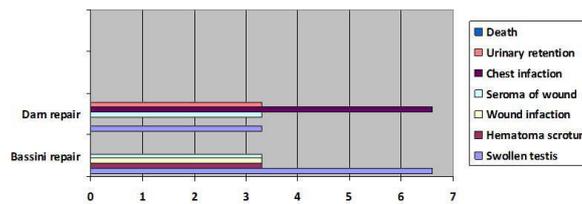


Figure No. 1: Post agent early entanglement rate in the two repairs (inside multi month)

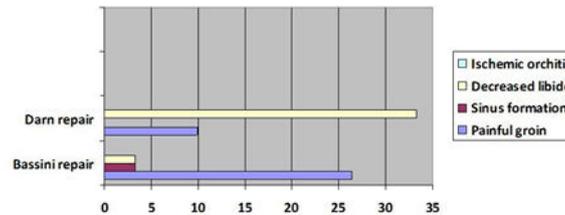


Figure No. 2: Post agent postponed confusion rate in the two repairs (following multi month)

No main agent and sedative difficulties including heart failure, damage of viscera, line damage, damage of the nerve or abundant discharge was seen in the two systems. More agony was seen by the patients in bassini repair so there was a drawn out utilization of analgesics as contrast with darn repair.

No principal operative and anesthetic complications including cardiac arrest, injury of viscera, cord injury, injury of the nerve or copious haemorrhage was observed in both procedures.

More pain was observed by the patients in bassini repair so there was a prolonged use of analgesics as compare to darn repair.

DISCUSSION:

A proverb was stated many years back by Sir John Bruce “The final word on hernia will probably never be written”¹⁰. The same is true today.

The Occurrence of inguinal hernia is 73% to 84 %¹¹. Ninety five per cent of patients presenting to primary care are male¹². The objective in inguinal hernia is to provide a tension free repair. The operation typically takes about 30-45 minutes to complete and you'll frequently be able to go home on the similar day. Some people stay in hospital overnight if they have other medical complications¹³. The practice in our unit is to be discharged on the following day. Out results displaced the incidence of inguinal hernia 10.29% of the total admissions. The rate of recurrence in other centres ranges from 10%-18% of the total surgical admissions^{14, 15, 16}.

The cause of post-operative pain in bassini repair is seems to be due to tension on the suture between conjoint muscles and inguinal ligament which was significantly fewer in darn repair.

In the first 10 years of life, right inguinal hernia is more common due to late plunge of right testis. After second decade of life, hernia on left side is as common as on right side¹⁷. In 16% of cases,

bilateral hernia is observed.¹⁸

The frequency of persistent hernia after principal reparation of a groin hernia vary in between 1% (in specialized centres) to 30% (in general surveys)¹⁹. During the pre-mesh era, it was predictable that primary inguinal hernia reparation had a 10%–30% reappearance ratio and that the degree was 35% for recurring hernia restoration¹⁹. The Lichtenstein repair is considered the “gold standard”. Results of 3019 cases from 05 spots have confirmed a 0.5% reappearance.²⁰

CONCLUSION:

Darn repair and bassini repair can be related for younger patients suffering primary hernia. However, darn is more superior to bassini in terms of initial ambulation, analgesic dealing and post-op painful conditions.

Conflict of Interest: The study has no conflict of concern to declare by any writer.

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