

INGUINAL HERNIOPLASTY IN ELDERLY PATIENTS UNDER LOCAL ANESTHESIAK. S. Shahi¹, Geeta Bhandari², Bhuvan³, Prashant⁴, Sanjeev⁵, Rakesh⁶, Malvika⁷**HOW TO CITE THIS ARTICLE:**

K. S. Shahi, Geeta Bhandari, Bhuvan, Prashant, Sanjeev, Rakesh, Malvika. "Inguinal Hernioplasty in Elderly Patients under Local Anesthesia". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 18, May 05; Page: 4824-4827, DOI: 10.14260/jemds/2014/2518

ABSTRACT: OBJECTIVE: To evaluate the feasibility and safety of inguinal hernioplasty under local anesthesia in elderly patients with significant comorbidity. **METHODS:** A prospective study of 68 patients requiring inguinal mesh hernioplasty for inguinal hernia was carried. One group comprising 34 patients under 60 years of age underwent inguinal mesh hernioplasty while the other group comprising 34 patients over 60 years of age. The comorbid conditions and complications were compared between both groups. **RESULTS:** Inguinal mesh hernioplasty in elderly patients is more likely associated with comorbid conditions than younger patients in terms of hypertension, chronic obstructive pulmonary disease, cardiovascular diseases, benign prostatic hyperplasia etc. **CONCLUSION:** Elective inguinal mesh hernioplasty under local anesthesia has good results in elderly patients with significant comorbidities. Inguinal mesh hernioplasty under local anesthesia is safe and results in good success rate in elderly patients with significant comorbidities.

KEYWORDS: Local anesthesia, inguinal mesh hernioplasty, inguinal hernia, comorbidity.

INTRODUCTION: Inguinal hernia is a very common disease and it is more frequent in elderly than in younger patients. The incidence rises from 11 per 10, 000 person years aged 16-24 years to 200 per 10, 000 person-years aged 75 years and above.¹ Inguinal hernia repair is one of the most commonly performed operations worldwide.² Moreover the demand for surgical services for inguinal hernia is increasing due to an increase of an ageing population.³ This study was carried out to evaluate the feasibility and safety of inguinal hernioplasty under local anesthesia in elderly patients with significant comorbidity.

METHODS: In this study we included patients with inguinal hernia that attended in the period between August 2012 and July 2013. A total of 68 hernioplasty were performed in local anesthesia, 34 of these were patients under 60 years and 34 patients were over 60 years. All procedures were performed as with Lichtenstein tension free mesh hernioplasty techniques with standard polypropylene mesh. Prophylactic antibiotics were not used. Patients with American Society of Anesthesiologists (ASA) grade 1 and 2 underwent deep sedation by midazolam combined with a field block of local anesthesia by lignocaine without adrenaline.

For patients with ASA grade 3 and 4, procedures were performed in the presence of the anesthetist and deep sedation was not used. Patients with recurrence, bilateral hernia, large size hernia and irreducible hernia were excluded from the study. Comorbidity was registered in the preoperative time. Patients were examined after 1 week and a second time after 1 month after surgery to evaluate postoperative complications.

ORIGINAL ARTICLE

RESULTS: None of the 68 procedures were complicated by any side-effects due to the local anesthesia or any other procedure-related complication and there were no deaths. There was a higher rate of comorbidity in the group of over 60 years of age.

The main associated illnesses that were observed are: hypertension (38.24% in over 60 and 26.47% in under 60), diabetes (26.47% in over 60 and 17.65% in under 60), chronic obstructive pulmonary disease (COPD; 26.47% in over 60 and 11.76% in under 60), benign prostatic hypertrophy (BPH; 17.65% in over 60 and 8.82% in under 60), cardiovascular diseases (CD 14.7% in over 60 and 8.82% in under 60), obesity (14.7% in over 60 and 23.5% in under 60) renal failure (5.88% in over 60 and 2.94% in under 60) (Table:1).

Post-operative complications like recurrence, wound infection, urinary retention, wound hematoma and mesh infection were evaluated (Table: 2). There was a slightly higher rate of complications in the elderly group, urinary retention (14.7% in over 60 and 8.82% in under 60), wound infection (5.88% in over 60 and 2.94% in under 60), wound hematoma (2.94% in over 60 and none in under 60), recurrence (2.94% in over 60 and none in under 60) and mesh infection was seen in none of the case. Even in the elderly patients with significant comorbidity the complication rate was not particularly high.

N=68				
AGE	<60 YEARS		>60 YEARS	
	34	50%	34	50%
ASA 1-2	20	62.5%	12	38.5%
ASA 3-4	14	38.88%	22	61.11%
OBESITY	8	23.5%	5	14.7%
HYPERTENSION	9	26.47%	13	38.24%
CARDIOVASCULAR DISEASE	3	8.82%	5	14.7%
DIABETES	6	17.65%	9	26.47%
BPH	3	8.82%	6	17.65%
RENAL FAILURE	1	2.94%	2	5.88%
COPD	4	11.76%	9	26.47%

TABLE 1: CHARACTERISTICS OF PATIENTS WITH CO-MORBIDITIES

N=68				
AGE	<60 YEARS		>60 YEARS	
	34	50%	34	50%
RECURRENCE	0		1	2.94%
WOUND INFECTION	1	2.94%	2	5.88%
URINARY RETENTION	3	8.82%	5	14.7%
WOUND HEMATOMA	0		1	2.94%
MESH INFECTION	0		0	

TABLE 2: POST OPERATIVE COMPLICATIONS

ORIGINAL ARTICLE

DISCUSSION: Inguinal hernia is a common surgical problem and affects 15% of adult men and inguinal hernia repair is one the most common surgical procedure performed worldwide ⁴⁻⁵. Open repair like Lichtenstein under local anesthesia is safe and cost effective.⁵ In the last two decades Lichtenstein repair has been the most frequently used technique and can be performed on outpatient basis under local anaesthesia.⁶

Inguinal hernia causes dull aching discomfort and an unsightly swelling and hernioplasty gives a remarkable improvement of quality of life also in geriatrics patients.^{3,7, 8} A properly timed elective hernioplasty allow us to avoid acute complications like strangulation, intestinal obstruction, and infarction that are the most important complications of untreated hernia, and are potentially life-threatening.⁶

According to the literature the safest approach to geriatric patients is to perform hernioplasty in open surgery⁹ using local anaesthesia^{10,11} but some authors suggests that it is better to take a watchful waiting approach especially in asymptomatic patients.^{12,13}

For 2 decades, local anesthesia has been used for groin hernia repairs. Administration of sedative drugs by the surgeon, or preferably, by an anesthesiologist as "monitored anesthesia care" for intraoperative infusion of rapid short-acting amnesic and anxiolytic agents, reduces the patient's situational anxiety. Furthermore, it decreases the required amount of local anesthetic agents.¹⁴

CONCLUSIONS: Elective inguinal hernia repair under local anesthetic has a good outcome also in the elderly even if there are significant comorbidities.^{15,16} The slightly higher rate of complications that occurred in older patients is not significant and does not support advising against the use of this surgical approach in elderly. Hernioplasty under local anesthesia is quite safe and feasible also in patients over 60 years.

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ORIGINAL ARTICLE

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Date of Submission: 26/03/2014.
Date of Peer Review: 27/03/2014.
Date of Acceptance: 03/04/2014.
Date of Publishing: 30/04/2014.