A COMPARATIVE STUDY OF POST-SURGICAL COMPLICATIONS BETWEEN ELDERLY AND YOUNG PATIENTS AFTER INGUINAL HERNIA REPAIR.

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INTRODUCTION:

The risk of developing inguinal hernia increases significantly in the elderly due to loss of strength of the abdominal wall and intra-abdominal conditions. The purpose of this study is to compare the postsurgical complications that occur in patients older and younger than 60 years, after an inguinal hernia plasty.

METHODS:

Retrospective study of 266 patients who underwent surgery for unilateral or bilateral inguinal hernia with the open Lichtenstein-type technique or the transabdominal preperitoneal laparoscopic technique (TAPP) during the period 2016-2019. In group 1, 172 patients aged 60 years or older were included, in group 2 93 patients who did not exceed that age. The variables studied in the two groups of patients were: repair technique, postoperative complications such as surgical site infection, cardiac event, seroma, hematoma and inguinodynia, and severity according to the Clavien Dindo scale. The statistical analysis was made with x2 and OR in SPSS.

RESULTS:

The TAPP laparoscopic surgical technique was the most applied in both groups, 81.9% in those under 60 years of age and in older adults in 65.1%. The mean length of hospitalization in the group under 60 years old were 4 days and 3.4 days for the older group. The incidence of complications was higher in the group aged ≥60 (74.1%) compared to those ≤60 (25.9%) (P <0.106). The percentage for seroma, hematoma, inguinodynia and cardiologic complications were higher in older adults (77.8%, 78.9%, 63.3% and 10.5%). The OR for cardiologic complications was 5.3 (CI:1.20-23.5). In the Clavien Dindo Score there was 26.1% in Grade I in the group under 60 years, and 31.2% in older adults. There were no deaths and only one case Grade IV A in older adults and one case IV B in patients under 60 years old. According to the surgical technique there was a lower frequency of complications in the TAPP technique 9.8% (17) compared to the open Lichtenstein technique 13.9% (24) in older adults.

ANALYSIS:

The mean length of hospitalization in the group under 60 years old were 4 days and 3.4 days for the older group without significant differences. The incidence of complications was higher in the group aged ≥60 (74.1%) compared to those ≤60 (25.9%) (P <0.106). When divided there were higher percentages for seroma, hematoma, inguinodynia and cardiologic complications in patients aged ≥60 years, with no statistical significance. The most common complications were hematoma (78.9%) and seroma (77.8). For the Clavien Dindo Score there were more cases in the older group with p≥0.05. The older adults has lower lenght of hospitalization than the younger group (3.4 vs 4.02; p=0.48). When studying the risk we found being ≥60 years old as a risk factor for cardiologic events (OR: 5.3; CI:1.20-23.5). Which is an expected result for the older population.

CONCLUSION

In this study, it was determined that patients undergoing hernia surgery over 60 years old have apparently more complications, being the most common hematoma and seroma. However, there were no statistical significance and there is no difference in the severity of these complications when compared with those of the <60 years group according to the Clavien Dindo classification.

TAPP surgery is the most widely used in our center and the safest for both groups with a low percentage of complications. Age should not be a contraindication for performing a laparoscopic inguinal hernia repair.

Table 1. Patient's baseline characteristics between surgical groups

		<60 years n=93 (%)	≥60 years n=172 (%)	p value
Age M (SD)		47.12 (11.09)	71.18 (7.6)	<0.05
Sex (%)	Men	70 (74.2)	136 (79.1)	0.391
	Women	24 (25.8)	36 (20.9)	
Lenght Hosp (Days) M (DS)		4.02 (9.82)	3.48 (1.93)	0.489
Comorbidities (%)				
DM		12 (12.8)	26 (15.1)	0.601
AH		16 (17)	77 (44.8)	<0.05
Smoke		31 (33)	45 (26.2)	0.239
Alochol		30 (31.9)	22 (12.8)	<0.05
BMI		26.9 (3.58)	26.04 (3.66)	0.65
	Normal	28 (29.8)	73 (42.4)	
	Overweitgh	51 (53.8)	77 (44.8)	0.126
	Obese	15 (16.1)	22 (12.8)	
Surgery				
Lichtenstein		17 (18.1)	60 (34.9)	0.004
TAPP		77 (81.9)	112 (65.1)	
Urgent		7 (7.4)	15 (8.7)	0.786
Ambulatory		4 (4.3)	9 (5.2)	0.781
Hospitalization		88 (93.6)	161 (93.6)	

M: media; SD: Standard Deviation; DM: Diabetes Mellitus ; AH : Arterial Hypertension ; BMI: Body Mass Index; TAPP: Transabdominal preperitoneal

Table 2. Complications between groups

	<60 years n=93 (%)	≥60 years n=172 (%)	p value	OR (CI)
Complications	14 (25.9)	40 (74.1)	0.105	1.73 (0.88-3.38)
SSI	0	0(0)	0	0
Seroma	6 (22.2)	21 (77.8)	0.133	2 (0.79-5.2)
Hematoma	4 (21.1)	15 (78.9)	0.176	2.1 (0.69-6.67)
Inguinodynia	4 (36.4)	7 (63.6)	0.942	0.95 (0.27-3.34)
Cardiologic	2 (2.1)	18 (10.5)	0.42	5.32 (1.20-23.50)
Tecnhique				
Lichtenstein	5 (17.9)	23 (82.1)	0.041	2.7 (1.0-7.4)
TAPP	9 (34.6)	17 (65.4)	0.935	1.03 (0.44-2.42)

SSI: surgical site infection; TAPP: Transabdominal preperitoneal

Table 3. Clavien Dindo Between Groups

	<60 years n=93 (%)	≥60 years n=172 (%)	p value
0	59 (64.1)	103 (60.6)	
I	24 (26.1)	53 (31.2)	
II	4 (4.3)	10 (5.9)	
III A	1 (1.1)	0	0.48
III B	3 (3.3)	3 (1.8)	
IV A	0	1 (0.6)	
IV B	1 (1.1)	0	

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