

POSTOPERATIVE COMPLICATIONS AFTER TOTAL HIP ARTHROPLASTY USING DIFFERENT SURGICAL APPROACHES

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OBJECTIVES

One of the determining factors for the success of total hip arthroplasty is the rate of postoperative complications. The aim of our study is to compare the complication rates in the early postoperative period in patients undergoing total hip arthroplasty by different surgical approaches.

METHODS

Patients were selected by simple convenience sampling technique from the Department of Orthopaedics Clinical Centre of the University of Pécs and the Da Vinci Private Clinic (Pécs, Hungary). Patients were operated in anterolateral and anterior surgical approaches. In the early postoperative period (6th week), we evaluated the patients' complication rates, rates of re-admission to the doctor, rates of new hospital admissions and their causes.

RESULTS

A total of 338 patients participated in our study (155 male, 183 female, mean age: 65.70 years) (Table 1). Among them 177 patients were operated by anterior approach and 161 patients by anterolateral approach. There was no difference in the postoperative complication rate between patients operated with different surgical approaches (anterior: 14.12%; anterolateral: 13.66%; $p=0.903$). Readmission to the doctor (10.56% vs 6.78%, $p=0.215$) and new hospital admission rates (3.11% vs 1.69%, $p=0.394$) were higher in patients operated with anterolateral approach, but these results were not statistically significant (Table 2). The most common causes included dislocation, fracture, anaemia, wound inflammation, wound exudation, numbness, swelling, fever and blood pressure problems (Table 3). Patient satisfaction is shown in Figure 1-2.

CONCLUSIONS

The anterior versus anterolateral surgical approach showed no significant difference in terms of complication rate in the early postoperative period after total hip arthroplasty.

		Anterior surgical approach		Anterolateral surgical approach		p value
		n	%	n	%	
Participants	Nr. of persons	177	100%	161	100%	
	Nr. of persons (male)	92	51.98%	63	39.13%	0.018
	Nr. of persons (female)	85	48.02%	98	60.87%	0.018
Age	Mean age	64.51		67.01		0.018
	<45	12	6.90%	1	0.63%	0.003
	46-64	66	37.93%	53	33.13%	
	65<	96	55.17%	106	66.25%	0.039
BMI	Underweight	0	0	0	0	
	Normal	24	26.97%	16	22.22%	
	Overweight	31	34.83%	29	40.28%	
	Obesity	34	38.20%	27	37.50%	

Table 1. Characteristics of total hip arthroplasty patients operated on with anterior and anterolateral approach

		Anterior approach		Anterolateral approach		p value
		n	%	n	%	
Complication	Yes	25	14.12%	22	13.66%	0.903
	No	152	85.88%	139	86.34%	
Re-admission to the doctor	Yes	12	6.78%	17	10.56%	0.215
	No	165	93.22%	143	88.82%	
New hospital admission	Yes	3	1.69%	5	3.11%	0.394
	No	174	98.31%	156	96.89%	

Table 2. Rates of postoperative complications, re-admission to the doctor and new hospital admission

Complication	Anterior approach (n)	Anterolateral approach (n)
Wound inflammation	11	5
Anemia	0	4
Dislocation	0	4
Pain, numbness	4	2
Fracture	2	0
Fever	0	2
Knee pain	1	2
Swelling	4	1
Embolism	0	1
Muscle injury	1	0
Blood pressure problems (hyper-, hypotension)	1	1
Pneumonia	1	0

Table 3. Type of complication in patients with anterior and anterolateral approach

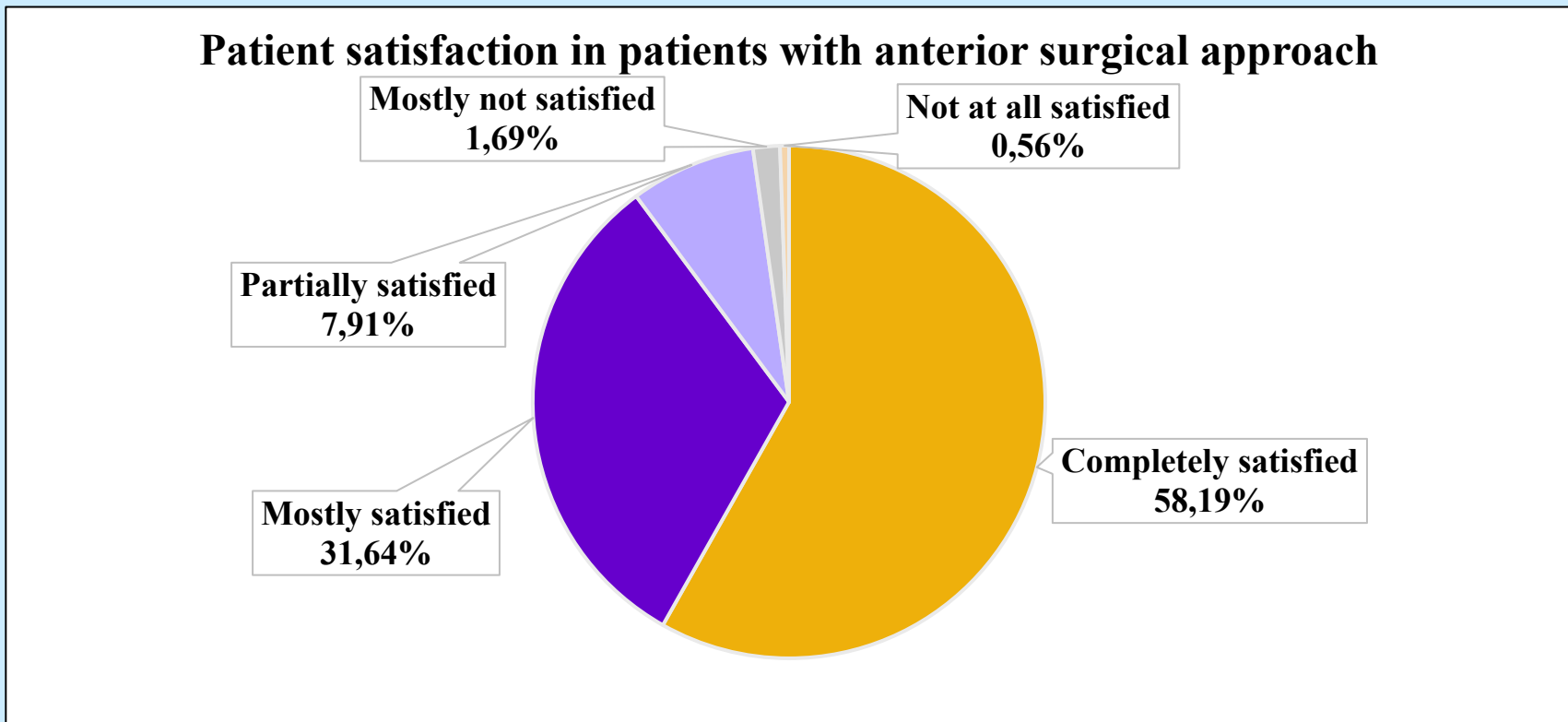


Figure 1. Patient satisfaction in patients with anterior surgical approach

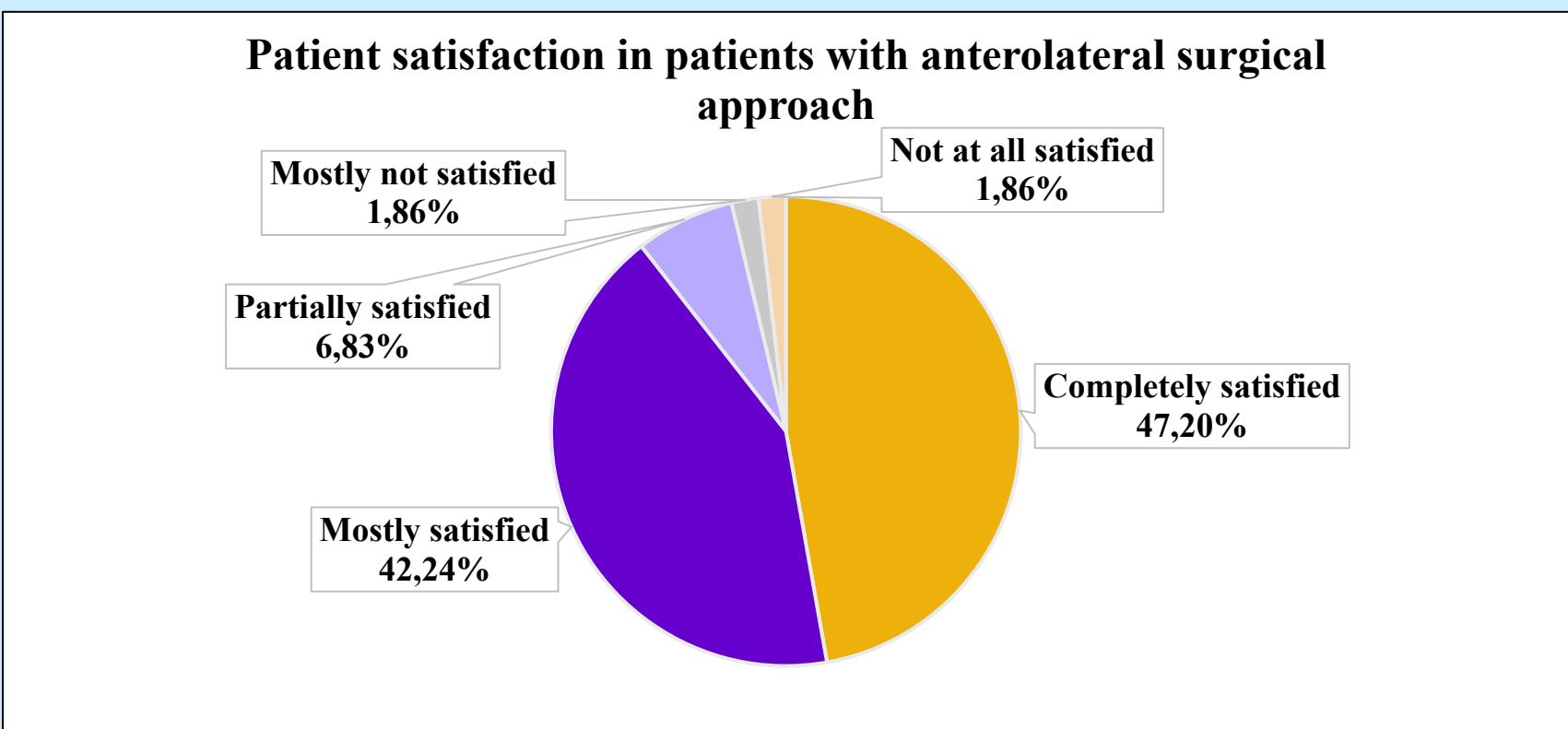


Figure 2. Patient satisfaction in patients with anterolateral surgical approach

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