PATELLA IN TOTAL KNEE REPLACEMENT: PATELLAR RESURFACING HAS BETTER OUTCOMES THAN LATERAL FACETECTOMY AT ONE YEAR FOLLOW-UP

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I have nothing to declare

INTRODUCTION

3 ways to manage the patella in total knee replacement



THERE IS VARIABLE LITERATURE ANALYZING WHICH IS THE BEST TREATMENT OPTION FOR THE PATELLAR COMPONENT

une 18-June 21



INTRODUCTION

The aim of this study is to compare pain and functional outcomes with Visual Analog Scale (VAS), 2011 Knee Society Score (KSS) and Knee Injury and Osteoarthritis Outcome Score (KOOS) in postoperative primary total knee replacement patients according to the treatment on the patellar component: patellar resurfacing (group 1) or lateral facetectomy (group 2). With preoperative evaluation and 12 months after surgery.







METHODS

- Ambispective cohort study.
- All patients who underwent surgery by the knee team from December 2019 to complete sample size were included.
- Demographic data; comorbidities; pre and postoperative knee mechanical axis and prosthetic designs used were analyzed.
- Preoperative 2011 KSS, KOOS and VAS scores were taken and compared with records at 1 year after surgery.
- Also, we analyzed revision surgery rate, in the first 6 months postoperatively and complications associated.



RESULTS

89 patients of which 43 (48.3%) correspond to the lateral facetectomy group and 46 (51.7%) to the patellar button group.

	Facetectomy group (n=43)	Resurfacing group (n=46)	р
Female, n (%)	30 (70%)	38 (83%)	0,15
Age years, mean (+ IQR)	74 (69, 79)	74.5 (71, 80)	0,35
BMI, mean (<u>+</u> SD)	29.96 (5.17)	30.24 (5.58)	0,81
DM, n (%)	7 (16%)	4 (9%)	0.28
HBP, n (%)	34 (79%)	31 (67%)	0.21
Coronary disease, n (%)	4 (9%)	3 (7%)	0.63
RA, n (%)	0	0	-
Neurologic disease, n (%)	0	0	-

BMI= body mass index; DM= Diabetes Mellitus; HBP= High Blood Presure; RA= Reumathoid Arthritis; IQR= Interquartil range; SD= Standard Deviation

- No differences between the two groups in the pre- and postoperative axis angle, neither in the prosthetic design used.

RESULTS

	Facetectomy group (n=43)	Resurfacing group (n=46)	р
Preoperative			
General KSS, median (IQR)	69 (50, 88)	54 (38, 82)	71
Satisfation KSS, median (IQR)	10 (0, 12)	1 (0, 10)	0.027
Expectation KSS, median (IQR)	15 (15, 15)	15 (14, 15)	0.19
Function KSS, median (IQR)	35 (24, 47)	33 (22, 45)	0.50
Postoperative 1 year			
General KSS, median (IQR)	84 (80, 87)	86 (84, 87)	0.002
Satisfation KSS, median (IQR)	40 (30, 40)	40 (40, 40)	0.046
Expectation KSS, median (IQR)	12 (12, 15)	15 (9, 15)	0.56
Function KSS, median (IQR)	85 (76, 95)	84 (74, 88)	0.39
KSS= Knee Society Score; RIQ= Inte	erquartil Range		

SIGNIFICANT DIFFERENCES IN FAVOR OF PATELLAR RESURFACING

GROUP ON GENERAL AND SATISFACTION KSS

RESULTS

Boston

Massachusetts June 18–June 21

KOOS AND VAS



SIGNIFICANT DIFFERENCES IN FAVOR OF THE PATELLAR RESURFACING GROUP IN SYMPTOMS (P=0.002), ACTIVITIES OF DAILY LIVING (P=0.018) AND QUALITY OF LIFE (P=0.004).

	Facetectomy group (n=43)	Resurfacing group (n=46)	р
VAS preoperative, mean (<u>+</u> SD)	8 (1.48)	7.82 (1.85)	0.63
VAS postoperative, mean(<u>+</u> SD)	1.79 (2.47)	1.28 (2.16)	0.30
SD-Standard Deviation			

DISCUSION

- The most important result of our series is the finding of better results for the patellar resurfacing group.
 - Although the tendency is to perform patellar resurfacing, it is necessary to have more information and studies about it.
 - The improved implants and the reduction of complications are factors that can influence in favor to perform patellar resurfacing.



CONCLUSION

The authors consider that although both treatments on the patellar component have significant improvements in clinical scores at one year after surgery, when compared, patellar resurfacing has better results at that postoperative time.





THANK YOU



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BIBLIOGRAPHY

- 1. Kurtz S, Ong K, Lau E, et al. Projections of primary and revision hip and knee arthroplasty in the United States from 2005 to 2030. J Bone Joint Surg Am 2007;89(4):780-5.
- 2. Boyd, A D, et al. "Long-Term Complications after Total Knee Arthroplasty with or without Resurfacing of the Patella." The Journal of Bone & Joint Surgery, vol. 75, no. 5, 1993, pp. 674–681., doi:10.2106/00004623-199305000-00006.
- 3. Waters T S, Bentley G. Patellar resurfacing in total knee arthroplasty. A prospective, randomized study. J Bone Joint Surg (Am) 2003; 85-A (2): 212-7.
- 4. Mosier BA, Arendt EA, Dahm DL, Dejour D, Gomoll AH. Management of Patellofemoral Arthritis. Vol. 24, Journal of the American Academy of Orthopaedic Surgeons. 2016. p. e163–73. Available from: http://dx.doi.org/10.5435/jaaos-d-16-00009
- Barrack RL, Wolfe MW, Waldman DA, Milicic M, Bertot AJ, Myers L (1997) Resurfacing of the patella in total knee arthroplasty. A prospective, randomized, double-blind study. J Bone Joint Surg Am 79:1121– 1131
- 6. Breugem SJM (2014) Anterior knee pain after a total knee arthroplasty: What can cause this pain? World Journal of Orthopedics
- 7. Feng B, Ren Y, Lin J, Jin J, Qian W, Weng X (2020) No difference in clinical outcome and survivorship after total knee arthroplasty with patellar resurfacing and nonresurfacing after minimum 10-year followup. Medicine 99:e19080

