

## Patellofemoral Arthroplasty for Symptomatic Isolated Patellofemoral Osteoarthritis: A Case Report

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### INTRODUCTION:

The patella and trochlear groove cartilage wear leads to patellofemoral arthritis. Isolated patellofemoral arthritis is a common disorder, involving 10 % of adults over the age of 40.<sup>1</sup> As a result, this contributes to the expansion of research into its therapeutic approaches.

Patellofemoral arthroplasty (PFA) appears to be a better alternative for these patients compared to total knee arthroplasty (TKA), since it maintains the physiologic tibiofemoral joint mechanics and enables a speedier recovery.<sup>2</sup> Therefore, PFA appears to be a preferable option for patients in the 40 to 60 years old age group.

### REPORT:

A 58 years-old lady presented with retro-patellar left knee pain diagnosed as symptomatic patellofemoral osteoarthritis. The pain is intensified by climbing stairs. Patella grinding test revealed left knee discomfort, with a restricted range of motion of 0-90 degrees. Palpation of lateral retinaculum was painful. Crepitus was felt and the patella tracked laterally as it transitioned from flexion to full extension.

She underwent PFA, in which, the trochlea and patella resurfaced using the respective jigs, preserving good bone stock. The trochlea prosthesis is wider and longer than the native trochlea, thus improving the patella tracking. The patella component is dome-shaped with curves mimicking facets and is compatible with TKA prosthesis. Both implants were positioned using the on-lay technique after testing the patella for successful tracking vertically along midline without additional thumb pressure.

At the sixth month post-surgery assessment, her

left knee could be flexed until 140-degrees without experiencing any pain.



**Figure 1:** Radiographs of left knee shows patellofemoral osteoarthritis with osteophytes and narrowing of the patellofemoral joint.



**Figure 2:** Post-surgery radiographs

### CONCLUSION:

Patellofemoral arthroplasty should be considered for symptomatic isolated patellofemoral osteoarthritis as it can delay or avoid the need for total knee arthroplasty. In combination of precise patient selection, accurate implant sizing, and soft tissue care, the patellofemoral arthroplasty produces an outstanding outcome.<sup>2</sup>

### REFERENCES:

1. Van Jonbergen HP, Poolman RW, Isolated patellofemoral osteoarthritis. *ActaOrthop*.2010 Apr;81(2):199-205.
2. Smith, J. R., & Eldridge, J. Patellofemoral joint arthroplasty: patient selection, surgical technique and outcomes. *Orthopaedics and Trauma*,2021,35(1),56–63.202.