Prospective clinical and radiological two-year results after patellofemoral arthroplasty using an implant with an asymmetric trochlea design.

The purpose was to prospectively evaluate the two-year results after implantation of the Journey PFJ® (Smith& Nephew, Andover, MA). The authors hypothesized that patellofemoral arthroplasty would result in improved outcomes after 24 months in patients treated with an isolated procedure as well as in patients demonstrating concomitant patellofemoral instability (PFI), which were treated with a combined surgical procedure. Patients were included between 02/2006 and 08/2008. According to the history and clinical findings, patients were grouped into group I with no history or clinical signs of PFI, and patients with concomitant PFI were assorted to group II. Patients were then treated with an isolated (group I) or a combined (group II) surgical procedure to additionally treat the PFI. Visual analogue scale (VAS), Lysholm score and WOMAC score were recorded preoperatively, 6, 12 and 24 months postoperatively. Patellar height was evaluated according to the index of Caton-Deschamps (CDI), and osteoarthritic changes were evaluated according to Kellgren and Lawrence. A total of 25 patients were enrolled, of them three discontinued interventions and were excluded from final analysis. An isolated implantation of the Journey PFJ® was performed in 14 patients (group I) and a combined procedure in 8 (group II). Daily pain and clinical scores significantly
improved at 6, 12 and 24 months compared to preoperative values (P< 0.05). Significant decrease (P = 0.02) of mean CDI could be noticed. Significant increase in tibiofemoral OA within the medial but not in the lateral tibiofemoral joint was assessed (P = 0.011; n.s.). Patellofemoral arthroplasty using the Journey(®) PFJ for treatment of significant patellofemoral OA demonstrated improved clinical scores at the 2-year follow-up in both groups. Comparing the primary OA (I) and OA + instability (II) groups, patients with patellofemoral OA treated with a combined procedure for concomitant stabilization of patellofemoral instability may benefit more from such a combined procedure, than patients treated with an isolated procedure for treatment of isolated patellofemoral OA. Prospective case series, Level III.