was performed in order to determine significant differences between preoperative and postoperative scores.
Results: No significant complications were experienced. Postoperatively, all patients reported significant pain relief. VAS scores improved from 8 preoperatively to 1.8 postoperatively. PE revealed significant improvements in functional outcomes as well. Forward flexion improved from a mean of 117 degrees preoperatively to 162 degrees postoperatively. Abduction improved from a mean of 36 degrees preoperatively to 58 degrees postoperatively. Good to excellent results were also observed in the WOOS, ASES and Constant scoring systems. WOOS improved from a mean of 1520 preoperatively to 300 postoperatively. ASES improved from a mean of 38 preoperatively to 72 postoperatively. Constant scores improved from a mean of 56 preoperatively to 82 postoperatively. Radiographs revealed solid implant fixation with no evidence of radiolucency, osteolysis, nor device migration.
Conclusions: Partial humeral head resurfacing arthroplasty in patients diagnosed with OA yields a successful outcome, with patients experiencing excellent pain relief and improved range of motion. Moreover, resurfacing arthroplasty requires minimal bone resection which is particularly important in the younger patient.

563 AUTOLOGOUS OSTEOCHONDRAL TRANSPLANTATION OF THE KNEE JOINT ASSISTED BY COMPUTER NAVIGATION. CADAVERIC STUDY

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Purpose: Measurement of precision comcerning angle of insertion and depth accuracy in autologous osteochondral transplantation in comparison to the conventional free hand technique.
Methods: The articular surfaces of 6 cadaveric condyles (medial – lateral) were used.
The knee was referenced by a navigation system (Praxim). The pins carrying the navigation detectors were positioned to the femur and to the tibia. The grafts were taken from the donor side (measurement I) with the special instrument which carried the navigation detectors. Navigation assured that the cutting angle was 90º to the articular surface. The recipient site was prepared, the navigation detectors were attached to the insertion instrument and the osteochondral grafts were forwarded into the repair site under the control of the navigation system in an angle of 90º to the articular surface (II).
The same procedure took place without navigation. The articular surface congruity was measured with the probe (measurement III) in order to detect the differences between the surface created by the grafts and the surface of the femoral condyle surrounding them.
Results: The angle of the recipient plug removal (measurement I) with the navigation technique was 3.27º (SD 2.05º; 0º-9º) deviation of the 90º axis, while the conventional technique showed 10.73º (SD 4.96º; 2º-17º). The mean difference between navigation and conventional technique was 7.46º ($p < 0.0001$).
For the recipient plug placement (measurement II) under navigated control a mean angle of 3.6º (SD 1.96º; 1º-9º) was shown, the conventional technique showed results with a mean angle of 10.6º (SD 4.41º; 3º-17º). There was a significant difference between navigation and conventional technique ($p = 0.0001$). Results of depth measurements (III) under navigated control showed a mean depth of 0.25 mm (SD 0.19 mm; 0 mm-0.6 mm). With conventional technique the mean depth was 0.55 mm (SD 0.28 mm; 0.2–1.1 mm). These results showed a significant difference for the navigation and conventional technique ($p = 0.0034$).
Conclusions: Computer navigated assistance in autologous osteochondal transplantation provides more accurate positioning of the grafts and better results concerning the articular surface congruity.