Functional Outcome After Medial Unicondylar vs. Total Knee Arthroplasty – An Analysis Based On Arthroplasty Registry Data

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DISCLOSURES

Michael Liebensteiner: Consultant Stryker
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Paul Köglberger: Nothing Declared

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Wilhelm Oberaigner: Nothing Declared

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Due to a lack of consensus in the literature it was the aim of our study to compare the functional outcome between unicondylar knee arthroplasty (UKA) and total knee arthroplasty (TKA).
Hypotheses

UKA and TKA significantly differ in terms of...

- postoperative WOMAC function scale (H1)
- postoperative WOMAC total scale (H2).
- postoperative range of motion (ROM) (H3).
Methods

- retrospective-comparative design
- WOMAC score data available from arthroplasty registry
- Womac function score (preop, 1 year postop)
- Womac total score (preop, 1 year postop)

- ROM data collected with goniometers were available from clinical routine / medical records (preop, postop days 4, 7 and 10 and 1 year postop).
- ANOVAs for repeated measurements were applied, adjusted for age
Results

- UKA group: n=112 (41 male, 71 female, age 65, BMI 29)
- TKA group: n=330 (125 male, 205 female, age 69, BMI 29)

- Preoperatively, the WOMAC function score was 48 ±22 in the UKA group and 53 ±21 in the TKA group.
- One year postoperative the WOMAC function improved to 22 ±22 in the UKA group and 25 ±23 in the TKA group.
- There was no significant group*time interaction (p=0.608, H1).
- This means that the amount of improvement in WOMAC function was not influenced by the surgical group
Results

WOMAC function

![Graph showing WOMAC function over time for different groups (UKA and TKA)]
Results

- Preoperatively, the WOMAC total was 48 ±20 and 53 ±20 in UKA and TKA patients, respectively.
- One year postop, the values improved to 21 ±21 in UKA patients and 23 ±22 in TKA patients.
- No significant group*time interaction was found (p=0.392, H2).
- This means that the amount of improvement in the WOMAC total score was not influenced by the surgical group
Results

WOMAC total

![Graph showing WOMAC total over time for UKA and TKA groups]
Results

- Regarding hypothesis 3 we found no significant group*time interaction for the ROM data (p=0.731)
On the basis of our findings it is concluded that UKA and TKA do not differ in WOMAC function or WOMAC total scores one year postoperative.

Similarly there are no differences in early or late postoperative gain in ROM.
Thank you