



Total Knee Arthroplasty Performed
With and Without Patellar Eversion.
A Prospective Randomized Study

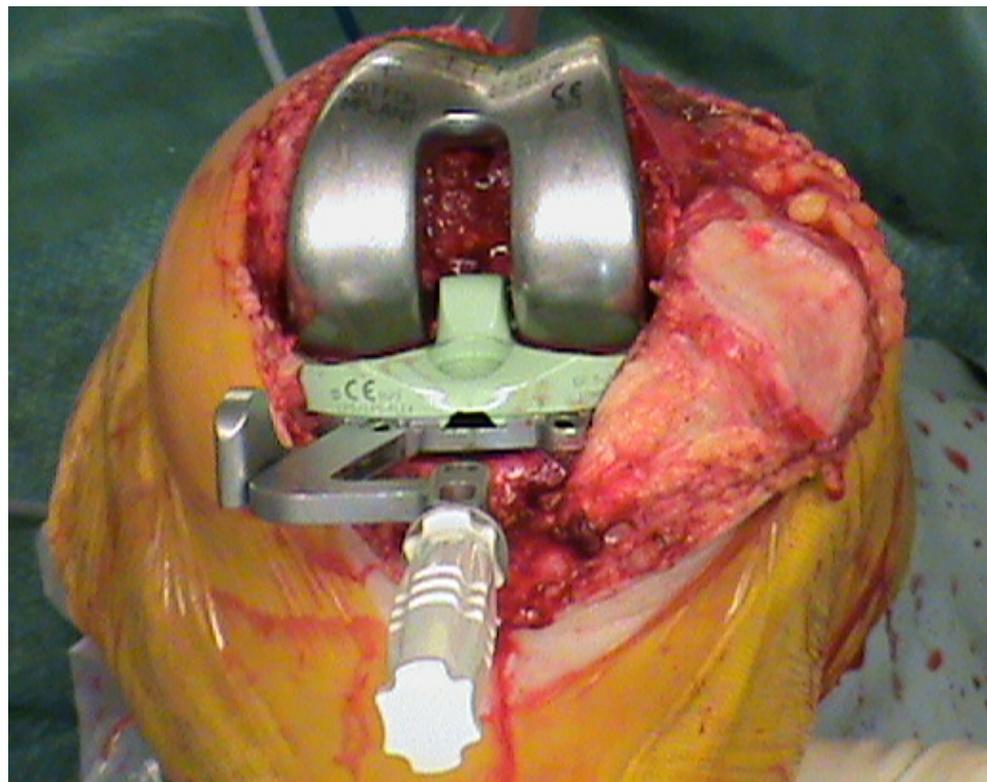
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introduction

Surgeons are familiar with everting the patella.

This affords the best view of the lateral aspects of the tibia and femur.

Patellar eversion during total knee replacement has been charged with adverse events on patient rehabilitation and the early clinical outcome.



Aim of the study

To practice mini invasive surgical technique specific instruments are needed.

Alignment, bone landmarks and implant sizing have to be properly preserved.

Minimally invasive surgical technique aims to reduce soft and bone tissue damage

To identify clinical outcome differences in a randomized series of total knee replacement performed with patellar eversion or patellar subluxation



Methods

Duration of the study could be a confounding factor.

Surgical skill and outcome's evaluation have to be measured within short period of time.

The knees of 30 patients were **prospectively randomized** to one of two treatment groups, patellar eversion (E) or patellar subluxation (S).

The patients and physical therapists were blinded to the type of treatment.

Therapists were asked to evaluate the clinical results and tests



Soft tissue dissection



Methods

KSS, range of motion, pain, lift off test, crutches support, stairs climb and walking ability, were measured

preoperatively, at two, and six weeks after surgery, and three, and six months later.

No tourniquet used

All implant cemented

Cement in excess has to be removed



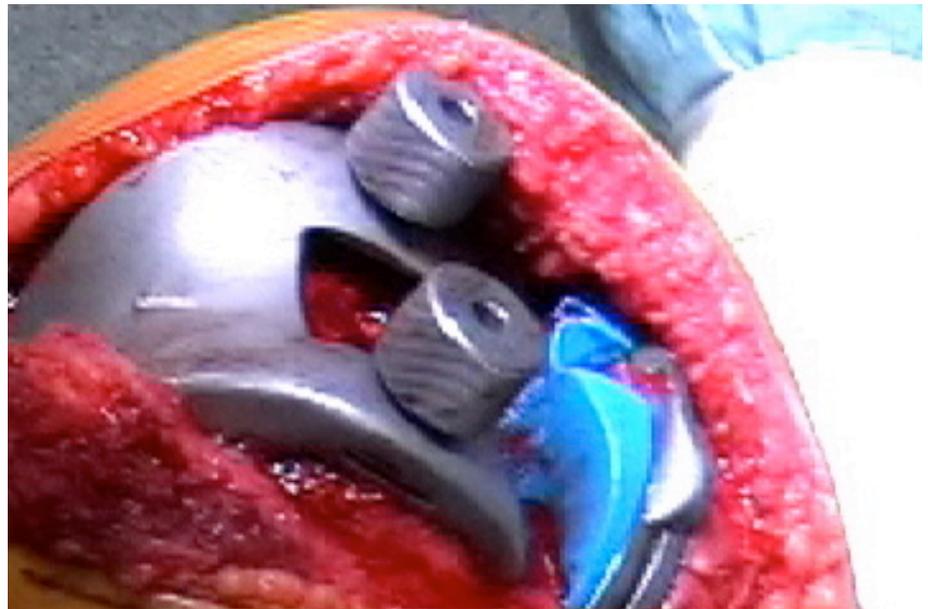
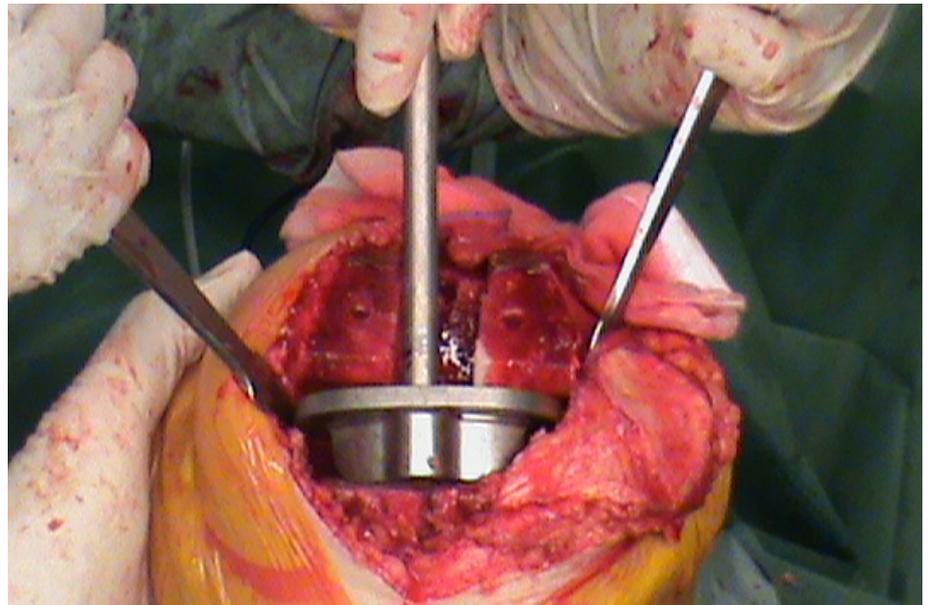
Results

The KSS did **not changed** significantly between the groups during the post operative period.

At two and six weeks after surgery **no significant** differences between the groups were found with regard to the range of motion.

Eleven patients E and nine patients S climbed stairs freely within three months.

Within the two groups no flexion contractures, malalignment or instability were measured at the six months follow up.



Results

Pain in TKR is more common than hip surgery.

Suprapatellar pouch and tendon distraction are possible causes of pain.

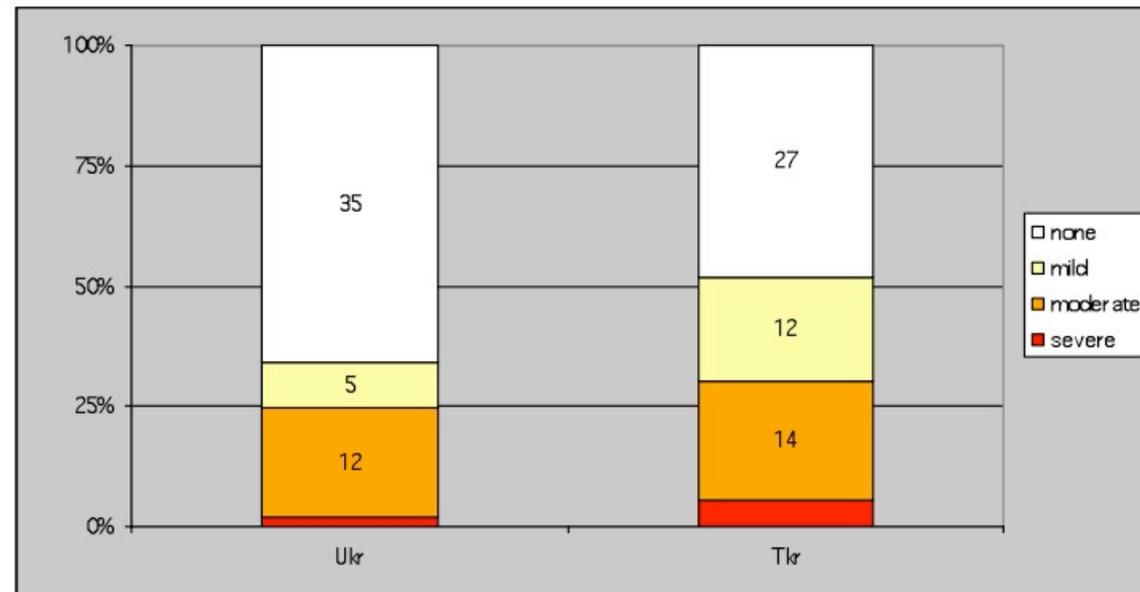
In terms of pain 3 patients E and 2 S referred moderate to severe symptoms treated by non steroid anti-inflammatory drugs.

Three and six month after surgery all patients have had ROM > 110°, and symptoms free.

Patient Satisfaction and Pain in UNI vs TOTAL knee arthroplasty
F Boniforti et al.

EFORT 2003 Helsinki

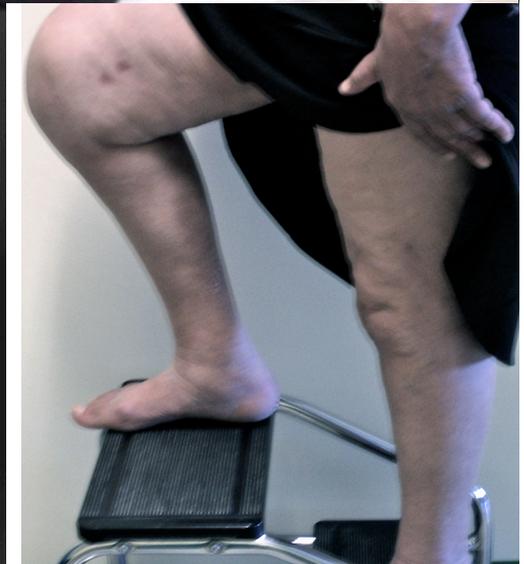
pain 12 mts FU



Results

The physical **therapist examination** did not measured any significantly differences between E and S patients

Patients gender, BMI, lifestyle, familiar supports, country or city home based patients are differences that have to be considered

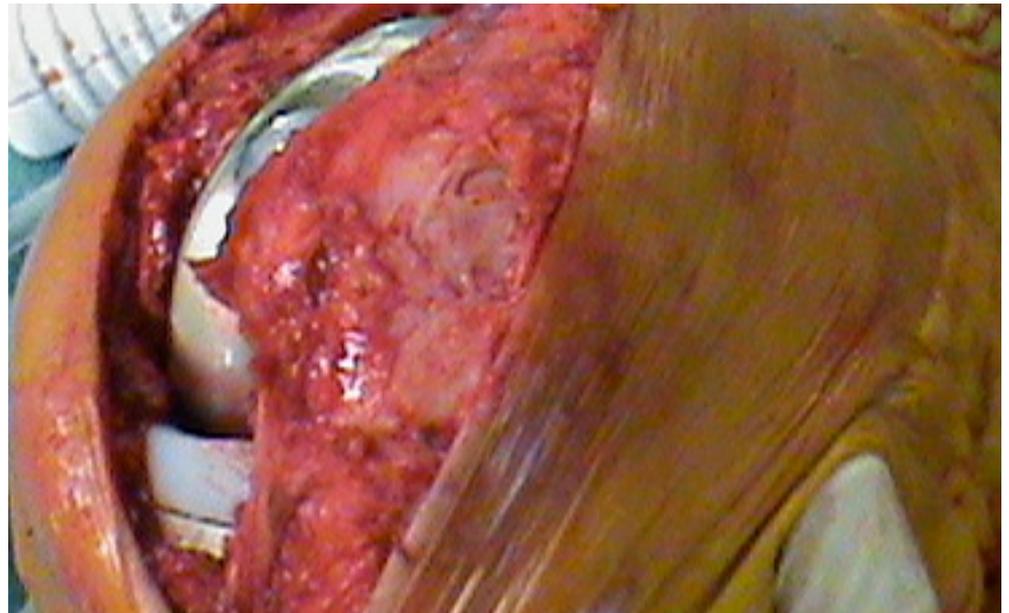


Discussion

We found no significant differences between the two groups (patellar eversion compared with patellar subluxation) at the early period after surgery.

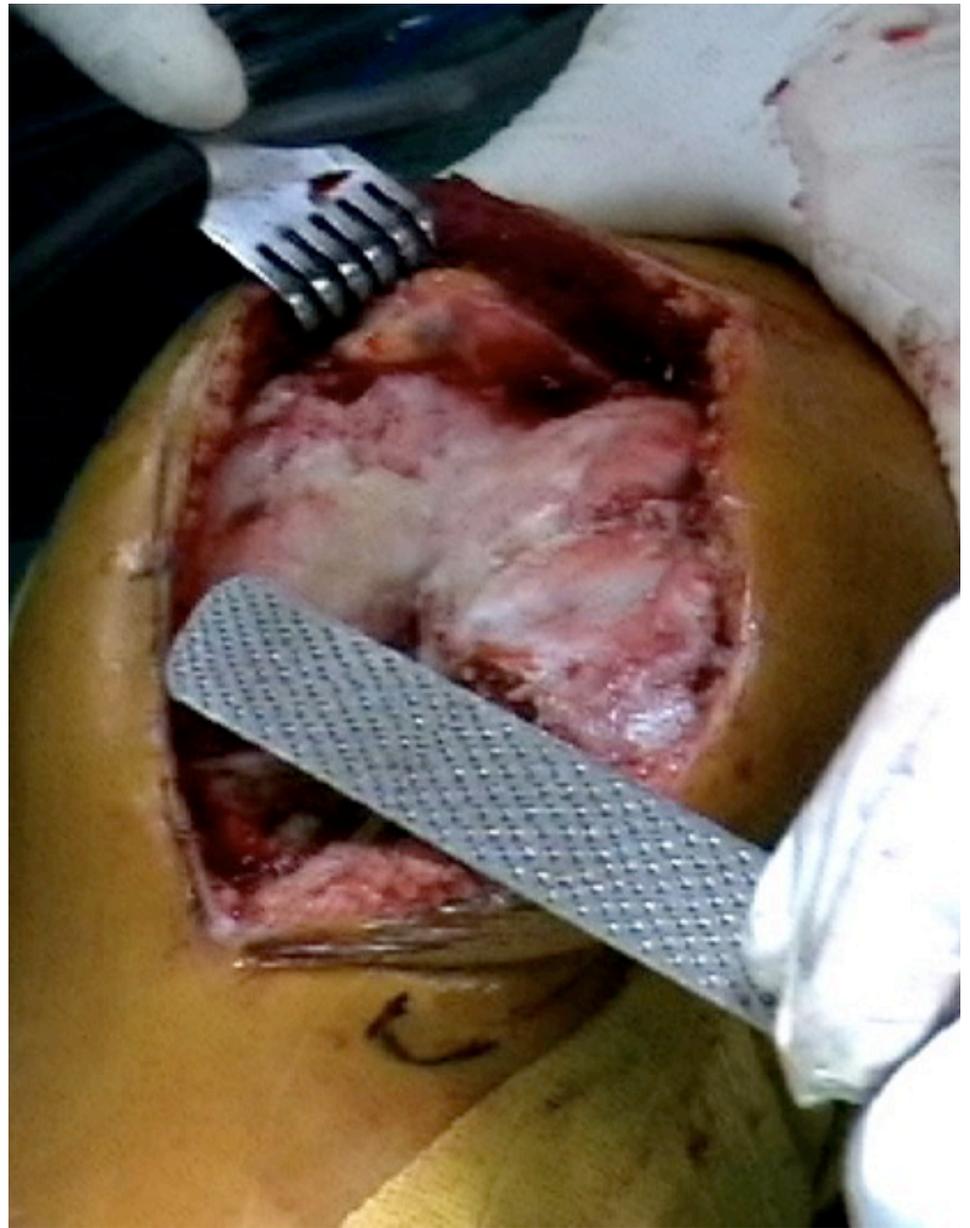
Lift off test is unreliable ($r=0,4$)

to measure damage on the extensor apparatus of the knee complex
instruments needed



Discussion

We conclude that patellar eversion appears to have **no adverse events** on the range of motion, early function, or knee rehabilitation program after total knee replacement.





Thank You

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