

The mini keel modular tibial plate in total knee replacement: prospective randomised clinical study.

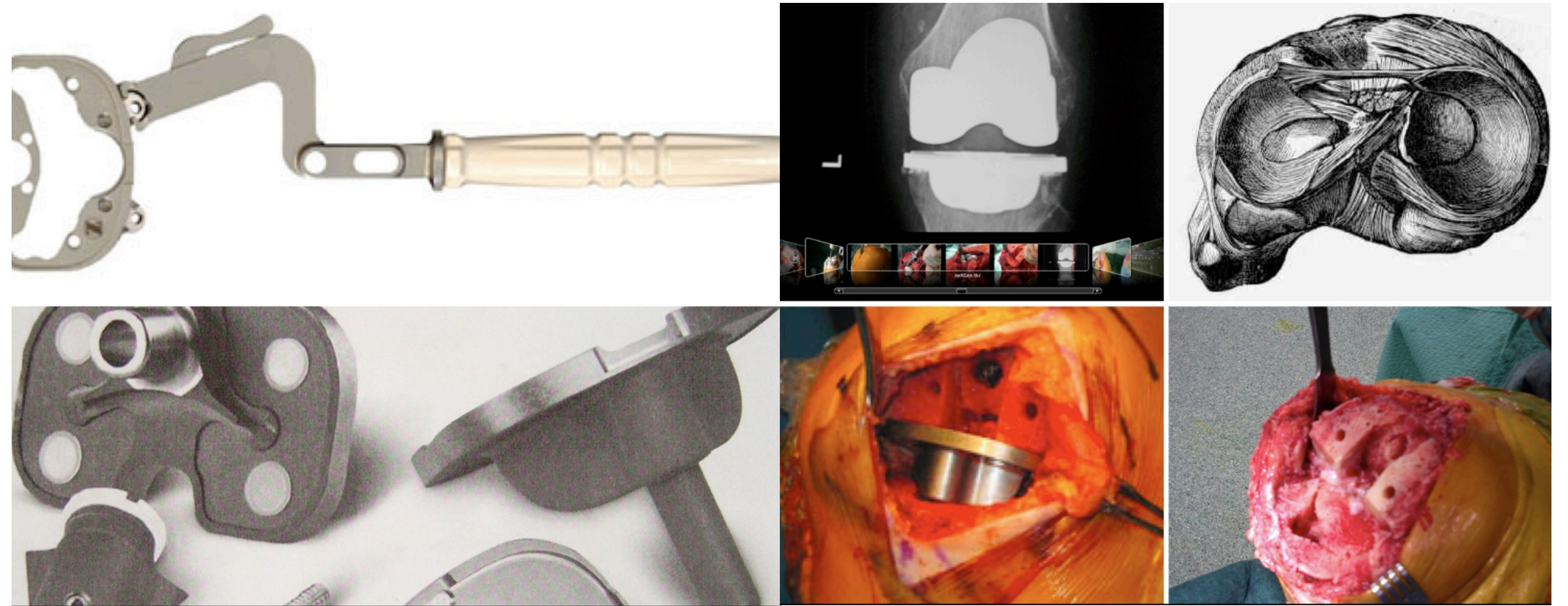
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Aim of the study

Mini invasive surgery techniques introduced **new devices** for joint replacement.

Modular **stem for tibial** plate and mini keel allow component placement without dislocation of the knee joint.

We **prospectively** evaluated clinical and radiographic differences among tibial plate **with and without** the modular stem.



Materials and methods

The knee of **60 patients** treated for primary arthritis by cemented total knee replacement (NexGen LPS-Flex Zimmer, Warsaw, Indiana) was **randomised** to receive a mini keel tibial plate with a **45 millimetres stem** (S) or without (U).

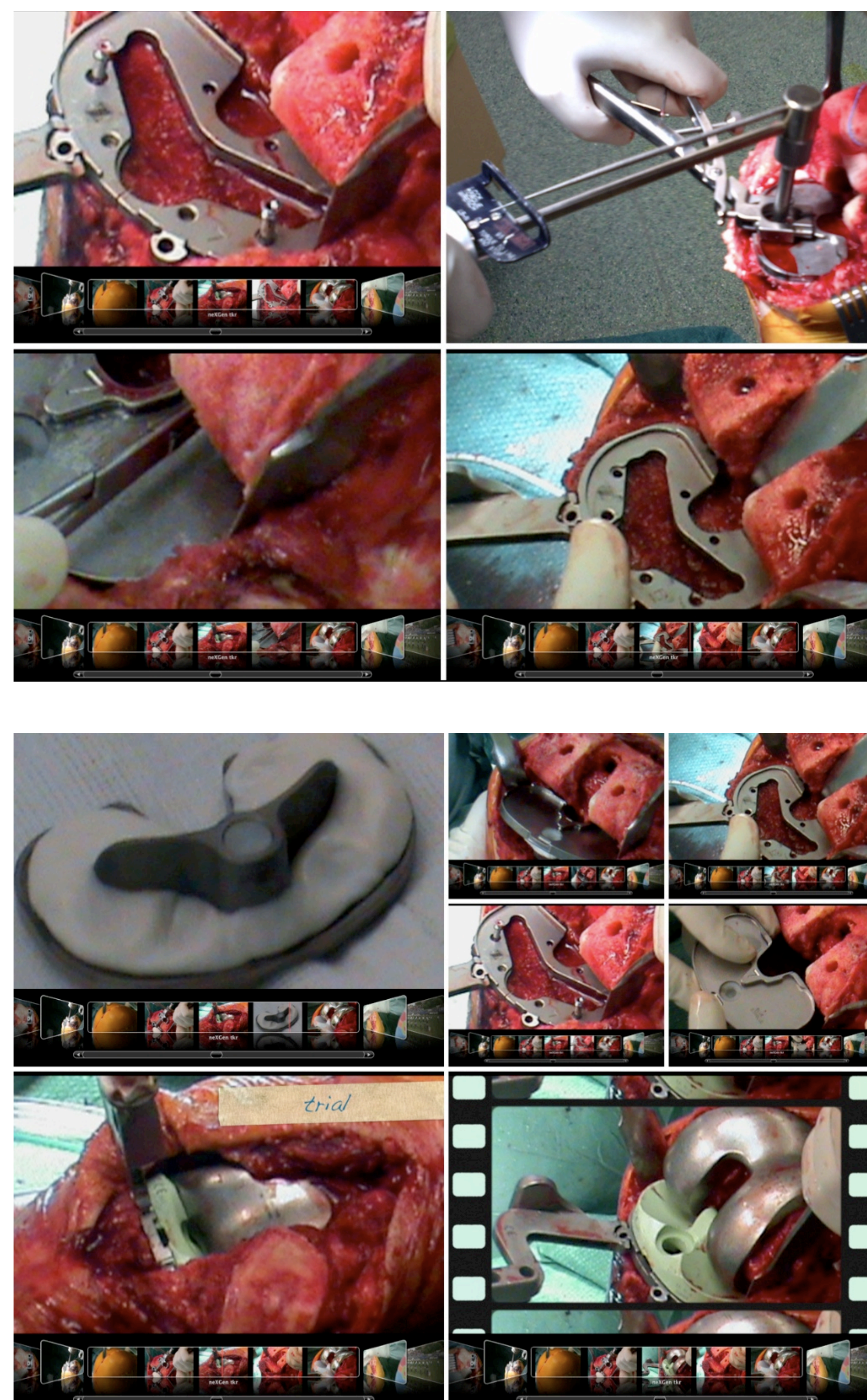
Clinical outcomes, KSS, range of motion, and pain were measured, at six weeks, six months and 3 years after surgery. Alignment on x-ray views and radiolucency were measured.

Results

The KSS did **not changed** significantly among the groups. In terms of pain one patient S and two U referred moderate symptoms. Six months after surgery all patients had ROM>110°, and symptoms free.

Three years after surgery KSS average was 92,5 and 91,7 for the S and the U group respectively.

Alignment angles on AP and lateral x-ray views were 89,6° and 86,4° for S group and 88,7° and 85,9° for U group. No radiolucent lines were recorded for each group.



Conclusions

We found **no significant** differences between the groups at the early period after surgery.

We concluded that 45 mm. modular **tibial stem does not** appear to **have benefits** on the ROM, function, and does not influence alignment or primary stability of the prosthesis

