Evidence in focus

Presentation summary

Götze C, Schley J. *World Arthroplasty Congress* (2018)*

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REDAPT◇ stem is a viable option for femoral revision surgery

After a minimum 12-month follow up, there were no cases of dislocation or periprosthetic fracture in patients with Paprosky type II to IV femoral defects

Study design

- A retrospective case series of 24 femoral revision arthroplasties performed with the tapered, fluted, titanium REDAPT system
- Stems were 190, 240, and 300mm in length in 5, 14, and 5 cases, respectively; the first 17 revision stems were a modular neck junction and the remaining 7 were a nonmodular monoblock design
- REDAPT was implanted in patients with Paprosky bone classification femoral defects of type II (n=8), IIIA (n=8), IIIB (n=7), and IV (n=1)

Key results

- Follow-up data were available on 23 of 24 revisions after a minimum of 12 months (range, 3-28)
- There were no cases of dislocation or periprosthetic failure
- Two stems were revised
  - One 300mm modular stem (Paprosky IIIB) was revised following subsidence of >1.5cm; it was replaced with a REDAPT of same length and an enlarged diameter of 3mm
  - One 18mm nonmodular stem length 240mm (Paprosky IIIA) underwent two-stage revision due to late infection

Figure. REDAPT System: Nonmodular stem (190mm/16mm), 62mm acetabular cup, and two locking screws, in a patient with a Paprosky type II defect

Conclusion

The REDAPT stem is a viable option for patients with types II to IIIB Paprosky defects undergoing femoral revision surgery. The authors concluded that these stems provide an alternative to modular components, without the risk of junctional fractures. Even when 300mm length straight stems are used, the stem can be placed in a naturally curved femur due to its chamfered tip design. The surgical expertise required to implant this stem should be analysed in future studies.

Study citation

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