

First case series reporting on REDAPT[®] Acetabular Shell in combination with locking screws demonstrates reliable fixation and encouraging outcomes in revision total hip arthroplasty (rTHA)

Shaarani SR, Jaibaji M, Yaghmour KM, Vles G, Haddad FS, Konan S. Early clinical and radiological outcomes of the new porous titanium shell in combination with locking screw in revision total hip arthroplasty. *Arthroplasty*. 2023;5(1):24.

Available at: [Arthroplasty](#)  

Key points

At a mean follow-up of 25.7 months REDAPT was associated with:



Absence of radiographic loosening in acetabular shells

5%

complication risk for all rTHA indications



High patient PROMs

Overview

- Retrospective review of rTHA cases using REDAPT Fully Porous Acetabular Shells with variable-angle locking screws performed by two senior orthopaedic surgeons at a UK institution, with a mean follow-up of 25.7 months
- 59 rTHA were performed in 55 patients (mean age: 68.8 years; 34 females) with Paprosky defects type I (n=21), type IIa/b (n=22), type IIc (n=9) and type IIIa/b (n=7)
- Indications for rTHA: aseptic loosening (n=21), prosthetic joint infection (n=11), peri-prosthetic fracture (n=8), Vancouver B2 fractures (n=6), hip resurfacing revision±pseudotumor (n=5), other (8)
- Patients underwent postoperative radiograph reviews at 6 weeks, 6 and 12 months and then yearly postoperatively
- Patient-reported outcome measures (PROMs) included Western Ontario and McMaster Universities Arthritis Index (WOMAC) scores, Oxford Hip Score (OHS) and the 12-item Short Form Survey (SF-12)

Results

- There were no acetabular shell revisions at the time of publication
 - There were three clinical failures
 - Two patients developed shell migration (both had Paprosky type IIIa defects) of which one showed good signs of osteointegration*
 - One patient underwent liner revision to a POLAR dual mobility liner (Paprosky type IIc defect)
- Patients reported high mean postoperative PROMs at final follow-up (Figure)
 - WOMAC pain score; 85±15
 - WOMAC stiffness; 83±15
 - WOMAC physical function; 84±17
 - WOMAC global score; 85±17
 - OHS; 83±15
 - SF-12 physical score; 44±11
 - SF-12 mental score; 56±10



Figure. Postoperative WOMAC scores

Conclusions

REDAPT Fully Porous Acetabular Shells with variable-angle locking screws demonstrate reliable fixation and good early clinical and radiological outcomes. The authors concluded that this implant may be a viable option for patients undergoing acetabular revisions either with a lipped liner or a reverse augmentation cementing technique.

For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's applicable Instructions for Use (IFU) prior to use.

* One case with multiple previous surgeries requires revision to a custom implant that was in the planning stages at time of publication