A Prospective Comparative Study Of Hip Resurfacing And Cemented Total Hip Arthroplasty With Up To 10 Years Follow-Up

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Background
Metal on metal hip resurfacing (HR) has become popular for younger patients because of perceived advantages in function and ease of revision. Joint Registry data have shown increased risk of early failure, particularly in younger females. There have been few studies comparing the outcome of hip resurfacing (HR) to "gold standard" cemented total hip arthroplasty (THA).

Methods
715 Hip Resurfacings (2000 – 2010) compared with 2210 Exeter cemented Total Hip Arthroplasties for all diagnoses during the same period. Survivorship recorded with revision for any cause as end point. Harris Hip Scores collected pre-operatively and at 1,3,5 and 7 year review. Kaplan Meier survivorship and non-parametric testing to investigate the effect of age (under 55 and over 55) and gender on revision rate and Harris Hip Score.

Results
Key:
- Total Hip
- Resurfacing

Survival of Exeter THA was better than HR overall. Revision rate 2% for THA and 7% for HR; P < 0.0001.

There was no significant difference in risk of revision between THA and HR in males at any age.

In females there was a significantly increased revision rate with HR. < 55 revision rates: THA 0%; HR 6.7%. >55 revision rates: THA 1.3%, HR 5.9%, P < 0.0001.

Conclusions
In this series survivorship and functional scores for HR are at least as good as for THA in males. Increased risk of revision after HR in females should be weighed against advantages of bone conservation and better post-op hip scores.