

## Study reveals 'unacceptably high' hip resurfacing failure rates

October 1 2012

an alternative to hip replacement often recommended to younger patients – is prone to early failure in many instances, and should not be used in women, according to an Article published Online First in The *Lancet*.

The observational study, conducted on behalf of the National Joint Registry for England and Wales, examined data from 434 650 hip operations undertaken between April 2003 and September 2011, of which 31 932 (7.3%) were resurfacings. The research looked at how many resurfacing implants failed in the first seven years after surgery and whether the head size of the implant affected failure rates. <u>Patients</u> with resurfacing were also compared with those who had undergone <u>hip</u> <u>replacement</u> with other bearing surfaces.

Hip resurfacing is similar to total hip replacement, except the femoral head (the rounded top section of the <u>thigh bone</u>) is not completely removed. Instead, the superficial bone is removed and replaced with a metal cap. Hip resurfacings always have metal-on-metal bearings, whilst total hip replacements can have a variety of bearing options, such as ceramic, metal, or plastic. Resurfacing is often offered to younger patients as an alternative to hip replacement, but is also commonly used in older patients.

The researchers found that the use of smaller head sizes was linked to higher failure rates and in most cases, resurfacing implants failed more quickly than other bearing surfaces. The only exception to this was for



men with a large ( $\geq$  54mm) femoral head, who showed comparable rates of implant success to those who had undergone total hip replacement. This group constituted only 23% (5085) of the total resurfacing operations in men during the period studied. Women who underwent hip resurfacing experienced particularly poor implant survival, with failure rates up to five times higher than other bearing surfaces.

According to Ashley Blom, Professor of Orthopaedic Surgery in the University of Bristol's School of <u>Clinical Sciences</u>, UK, "Resurfacing failure rates in women were unacceptably high. In view of these findings, we recommend that resurfacing procedures are not undertaken in women."

"The National Joint Registry for England and Wales has the biggest joint replacement database in the world, allowing us to analyse over 30 000 hip resurfacings up to 7 years after surgery. Our findings show that resurfacings with smaller head sizes are prone to early failure, and in particular that resurfacing in women has much worse implant survival, irrespective of head size."

The authors acknowledge that surgeons will need to weigh up other factors when assessing whether <u>hip resurfacing</u> is suitable for a patient, such as the relative benefits of total hip replacement and resurfacing surgery on patient function and quality of life.

According to Professor Art Sedrakyan, of Weill Cornell Medical College in New York, USA, author of a linked Comment accompanying the Article, "There might be a trade-off between higher occurrence of revision and better functional outcomes, which could be important for patients who are doing more physically demanding work or participate in sports."

However, Professor Sedrakyan adds that, "Regulators and surgeons need



to make proper recommendations for patients, such as not using resurfacing in women, and developing decision aids for patients to convey the benefits and harms of hip implants. It is also vital to prevent use of the marketing term "young and active"; few patients, even if elderly and inactive, will refuse a device that is intended for the young and active. Communication with patients on all these issues should be more specific and evidence based."

Provided by Lancet

Citation: Study reveals 'unacceptably high' hip resurfacing failure rates (2012, October 1) retrieved 27 April 2024 from <u>https://medicalxpress.com/news/2012-10-reveals-unacceptably-high-hip-resurfacing.html</u>

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