HIP REPLACEMENT

IN 2016

Fred Phillips MB ChB (Otago) FRACS
MY PROFILE

- Bowen, Wellington and Keneperu Hospitals
- Hip and Knee Primary and Revision Surgery
- >1000 Joint Replacements
- Hip Arthroscopy
- www.orthosports.co.nz
OVERVIEW

• How long do hips last?
• Where are we at with THR now?
• What are we working to improve?
• What about “Resurfacing”?
HIP REPLACEMENT

- **Quality of Life is improved**
  

- **Cost Effective Procedure**
  
HOW LONG DO HIPS LAST?
NZJR

- 1999-2016
- 101833 hip replacements
- Kaplan Meir 15 yr results. 87.3%
AGE

- **Dunedin Study**  
  Age at hip or knee joint replacement surgery predicts likelihood of revision surgery.  

- 4668 patients av age 69.

- patients younger than 50 had a better than even chance of revision

- patients aged 58 had 50/50

- if older than 62 patients more likely to outlive the prosthesis

- if 77, greater than 90% chance of outliving prosthesis
WHERE ARE WE AT?
THE AVERAGE HIP

• Combination Regional/GA
• 60 mins
• 3 - 4 day hospital stay
• Clexane for DVT prophylaxis
• Physiotherapy and Occupational Therapy management
• Fully weight bearing, independent ADL by discharge
• Discharged on non opiate analgesia and aspirin
• Absorbable sutures
• Off crutches 3-4 weeks
• Work by 6
COMPLICATIONS

- DVT 8.9%…..fatal PE, 0.05%
- Infection 1-2%
- Fracture <1% (5yrs)
- Dislocation 1%
- Change in leg length 6%
- Loosening < 1% early.
WHERE ARE WE GOING?
PRE ASSESSMENT

- Patient optimisation
- BMI
- Albumin
- Blood Sugars (Diabetes Control)
ANAESTHETIC

- Greater use of Regional
- Multimodal periarticular Injections
- Liposominal injections
TRANEXAMIC ACID

- Antifibrinolytic
- Stops Blood clots being broken down.
- Given IV mainly period
- Marked reduction in preoperative blood loss
- Marked reduction in Transfusion
SURGICAL APPROACH

- Minimally invasive Anterior approach
- Mini Posterior
- Less frequency of lateral approach
HIP RESURFACING

- Potential advantages
- Preserved femoral bone stock for future revisions
- Increased stability
- Increased range of motion
- Mimics biomechanics of biological hip
Higher failure rate compared to conventional THA

Higher failure rate in females

Increased serum metal ion levels

Metallosis

Pseudotumours

Aseptic lymphocyte-dominated vasculitis-associated lesion (ALVAL)
BIRMINGHAM HIP RESURFACING IN YOUNGER MALES IN NEW ZEALAND

Dr Saesol Shin, Mr Fred Phillips
OBJECTIVE

- Compare revision rates and Oxford hip scores for younger male New Zealanders who had Birmingham hip resurfacing (BHR) VS conventional total hip arthroplasty (THA) for osteoarthritis
NZ Joint Registry

Resurfacing Components 2004 - 2013

= 1247 hips
PATIENTS

- Male
- Age groups of under 55, 55-64 and 65-74
- Primary procedure
- Osteoarthritis
- BHR
- Or THA done after BHR was introduced in New Zealand
<table>
<thead>
<tr>
<th></th>
<th>BHR</th>
<th>THA</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;55</td>
<td>582</td>
<td>4229</td>
</tr>
<tr>
<td>55_65</td>
<td>334</td>
<td>7505</td>
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<tr>
<td>65_74</td>
<td>53</td>
<td>8985</td>
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<tr>
<td>TOTAL</td>
<td>969</td>
<td>20719</td>
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OUTCOME MEASURES

- Revision rate (per 100 component years)

- Oxford hip score (best score 48)
## Revision Rates

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<tr>
<th>Age Group</th>
<th>Hazard Ratio</th>
<th>P-Value</th>
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<tbody>
<tr>
<td>Under 55</td>
<td>0.468</td>
<td>0.009</td>
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<tr>
<td>55-64</td>
<td>0.434</td>
<td>0.037</td>
</tr>
<tr>
<td>65-74</td>
<td>0.000</td>
<td>0.171</td>
</tr>
<tr>
<td>Total</td>
<td>0.481</td>
<td>0.002</td>
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# RESULTS - REVISION RATES

<table>
<thead>
<tr>
<th></th>
<th>BHR</th>
<th>THA</th>
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<tbody>
<tr>
<td><strong>Rate/100CPY</strong></td>
<td></td>
<td></td>
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<tr>
<td>&lt;55</td>
<td>0.49</td>
<td>1.04</td>
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<tr>
<td>55_65</td>
<td>0.41</td>
<td>0.94</td>
</tr>
<tr>
<td>65_74</td>
<td>0.00</td>
<td>0.79</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>0.43</td>
<td>0.89</td>
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**RESULTS - OXFORD HIP SCORES**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Mean Difference</th>
<th>P-Value</th>
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<tbody>
<tr>
<td>UNDER 55</td>
<td>1.680</td>
<td>0.001</td>
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<tr>
<td>55-64</td>
<td>2.030</td>
<td>0.000</td>
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<tr>
<td>65-74</td>
<td>2.470</td>
<td>0.010</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.830</td>
<td>0.000</td>
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</table>
Birmingham hip resurfacing has merit as an alternative option for younger males with hip osteoarthritis in NZ with different benefits and risk profile to conventional THA.
CASE

- 47 Plumber
- Severe left Hip Pain
- Failed non operative management
- Referred for Hip Arthroscopy
CASE

- Spinal anaesthetic
- 300ml blood loss
- discharged day 3 on NSAIDs
CASE

- Post op film 6 weeks
- Pain free.
- No limp
CONCLUSIONS

- Hip replacement is a successful procedure
- Survivorship is excellent
- Complications are low
- But we are still working to improve
THANK YOU