Clinical and Radiographic Outcomes at 25-30 Years of a Hip Stem Fully Coated With Hydroxyapatite


347 CORAIL® Stems were implanted in 320 patients between July 1986 and December 1990. The mean follow up of the cohort is 26.8 years (Range 25-30 years).

Only 12 stems (3%) were revised, and only 6 of these were revised due to aseptic loosening.

When all causes of stem removal were considered, the CORAIL Stem survival in this series was 93.7% at 30 years.

At final follow up 96% of patients responded to say they were still satisfied with their hip. The mean Harris Hip Score was 81.6 (Range 37-100).

Primary Collared Uncemented Total Hip Arthroplasties in the Elderly: A Safe and Reliable Treatment Option


A consecutive cohort of 153 patients aged over 80 years were included in this study. The mean age was 84.5 (range 80-95 years) and 120 (78%) were females. 144 patients received a collared CORAIL Stem.

The mortality rate at 90 days was 0.65%. Only one patient required revision, due to a dislocation following trauma.

The Oxford Hip Score improved from a mean of 24 (range 4-41) pre-operatively to a mean of 46 (range 9-48) at 90 days.

This study demonstrates the successful use of a collared cementless implant in an elderly population, with excellent short-term postoperative complication rate, low mortality rate and good functional outcomes.
Over the last 15 years, the PINNACLE® Acetabular Cup System has been provided to over 3,000,000 patients.\textsuperscript{1}

The CORAIL Hip System celebrated 30 years in 2016, and in that time has been provided to over 2,000,000 patients.\textsuperscript{2}

In 2019 the PINNACLE Cementless Acetabular Cup was awarded an ODEP 13A* by the Orthopaedic Data Evaluation Panel.\textsuperscript{3}

In 2018 the CORAIL and CORAIL AMT Total Hip System were awarded an ODEP 13A* by the Orthopaedic Data Evaluation Panel.\textsuperscript{3}

### Australian Orthopaedic Association National Joint Replacement Registry Data for the CORAIL/PINNACLE Combination

According to the 2018 AOANJRR annual report, the CORAIL PINNACLE combination is the most implanted combination in cementless total hip replacement across Australia.\textsuperscript{4}

<table>
<thead>
<tr>
<th>Combination</th>
<th>Total</th>
<th>Year 2</th>
<th>Year 5</th>
<th>Year 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORAIL, PINNACLE</td>
<td>38,657</td>
<td>2.2% (2.0%-2.3%)</td>
<td>3.2% (3.0%-3.4%)</td>
<td>5.4% (5.0%-5.9%)</td>
</tr>
</tbody>
</table>

### National Joint Registry for England, Wales, Northern Ireland and the Isle of Man. Registry Data for the CORAIL/PINNACLE Combination

Based on the 2018 Annual Report, CORAIL PINNACLE was the most implanted combination in total hip replacement across England, Wales, Northern Ireland and the Isle of Man.\textsuperscript{5,6}

<table>
<thead>
<tr>
<th>Combination</th>
<th>Implantations</th>
<th>Year 3</th>
<th>Year 5</th>
<th>Year 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoC</td>
<td>40.187</td>
<td>1.80% (1.67%-1.94%)</td>
<td>2.44% (2.28%-2.615)</td>
<td>3.92% (3.61%-4.25%)</td>
</tr>
<tr>
<td>CoP</td>
<td>27.896</td>
<td>1.13% (0.99%-1.28%)</td>
<td>1.59% (1.40%-1.81%)</td>
<td>2.84% (2.29%-3.52%)</td>
</tr>
<tr>
<td>MoP</td>
<td>55.211</td>
<td>1.35% (1.26%-1.46%)</td>
<td>1.66% (1.54%-1.79%)</td>
<td>3.13% (2.84%-3.46%)</td>
</tr>
</tbody>
</table>
A total of 306 patients received a Cathcart modular head on a collared CORAIL Uncemented Stem as a hemi-arthroplasty. The mean age of the patients was 83.3 years (range 46.6 to 94) and 216 (70.6%) were women.

The mortality rate at 30 days was 5.8% which compares well to the 2011 NICE guidelines. 2 patients required revision to THR and in both cases this was due to continued deterioration of the acetabulum.

The primary aim of hemi-arthroplasty is to allow early mobilization and a return to normal activity. Within this study a total of 46.5% of patients returned to their own home by 30 days, which increased to 73.2% by 120 days. At one year a high proportion of patients had achieved their pre-fracture mobility rate.

Using a modern uncemented hip implant in a hemi-arthroplasty for intracapsular hip fracture provided satisfactory results, with a good rate of return to pre-injury place of residence and an acceptable mortality rate.

A total of 49 uncemented THRs were performed using the CORAIL Stem in 44 patients aged under 30 years (mean 25, range 15-30).

At a mean follow up of 13 years the survivorship of the femoral stem was 100%.

100% of stems were well integrated, with no signs of radiological loosening and no signs of subsidence.

The study reports excellent Harris Hip Scores (Mean 90, range 62-100).
References


Table TY1: Cumulative Percent Revision of Primary Total Conventional Hip Replacement Combinations with 10 Year Data
(Primary Diagnosis OA)

<table>
<thead>
<tr>
<th>Component</th>
<th>N in % Revised</th>
<th>N in % Total</th>
<th>Types of Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femoral</td>
<td>3435</td>
<td>36157</td>
<td>THR Femoral, Acetabular Other</td>
</tr>
<tr>
<td></td>
<td>101</td>
<td>409</td>
<td>2.2 (2.0, 2.3)</td>
</tr>
<tr>
<td></td>
<td>189</td>
<td>471</td>
<td>3.2 (3.0, 3.4)</td>
</tr>
<tr>
<td></td>
<td>5.4 (5.0, 5.9)</td>
<td></td>
<td>1169</td>
</tr>
</tbody>
</table>


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