Cementless Metal-Backed Patella: Back for Good? Excellent Short-Term Survivorship - No loosening on 2 to 5 years follow up.

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FG – This author has no disclosure to declare
NF – This author is an Educational Consultant for
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Background

The Cementless Implant can be the preference for younger, higher demand patients, and can be useful for higher BMI

The Implant is aiming for biologic fixation – osseointegration

Also avoids Multiple Interfaces (Bone-Cement, Cement- Prosthesis) – fibrous layer, which could be an ingress for infection

- Controversies:
 - Historically cemented prosthesis has lower survivorship
 - Early Patella Design had high rate of early failure
- New implant design utilises 3D Printed Cementless Metal-Backed patella with constant pattern using computer generated printout



Methods

Review of internal database of 3 hospitals of a single surgeon in Hampshire, United Kingdom from August 2016 – January 2020

All cases of primary TKR using cementless, metal backed patella

Available prosthesis types were Stryker Triathlon & Modular Rotating Hinge

Results

- 409 Knees
- Age 37 98



No Patella Loosening so far



Pre-Operative Films

Post-Operative Films

Patient 1







3 years follow up



C: 1784.0, W: 3030.0 C=1784.0, W=3030.0 1/2 S: 0 22/01/2019 10:30:15



X100 Knee Skyline RT

Pre-Operative Films

Post-Operative Films

Patient 2









1 year follow-up



Conclusion

- So far Cementless Metal-backed Patella shows an Excellent outcome
- However, we are aware that this is a short-term data
- We continue to follow up with patients
- Cementless Metal-Backed Patella may not be suitable for osteoporotic bone
 - We had 1 case where intra-operative decision to change to cemented patella had to be taken due to severely osteoporotic patella

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