

Total Knee Arthroplasty (TKA) Using The Evolis™ Total Knee Replacement System (All-In-One Femoral Cutting Guide). A Case Series

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INTRODUCTION:

The aim of this study was to determine the clinical and functional outcomes of patients that underwent total knee arthroplasty using the Evolis™ Total Knee Replacement System (Medacta International™) at Hospital Tuanku Ja'afar, Seremban. The potential benefits of this system include a single, all-in-one femoral cutting jig which may simplify surgery.

METHODS:

We identified all patient who underwent TKA surgery using this implant from December 2016 until December 2017. The mean time of follow-up post-surgery was 7 months. Out of a total of 28 patients, only 14 patients were contactable for follow up. Functional outcomes were measured using the Western Ontario and McMaster University Osteoarthritis Index (WOMAC) scores pre- and post-operatively. We also identified any complications in this series of patients.

RESULTS:

In our series, almost 85.8% of patients that underwent the Evolis™ total knee arthroplasty had a good to excellent early outcomes both clinically and functionally based on their WOMAC scores. The mean WOMAC score prior to operation was 15 and improved to 80 post-operatively. One of the fourteen patients suffered a superficial infection and this was treated via debridement and parenteral antibiotics.

DISCUSSIONS:

TKA has been well documented to produce excellent outcomes following surgery. As the number of TKAs increase year by year, any measures to simplify the workload for the operating surgeon would be welcome. The introduction of an all-in-one femoral cutting guide may serve to ease the surgical procedure and has the potential of minimizing potential mistakes; especially by the more junior

surgeons among us. This system also has the potential of improving operating times by negating extra steps in fashioning the femur for implantation.

CONCLUSION:

The early results using the Evolis™ system for TKA are satisfactory based on our series. Longer term follow-up and further radiological outcome studies would be beneficial in elucidating the use of this particular implant.