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Editorial

Recent Updates and Advances in Reconstructive Knee Surgery

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There have been multiple waves of COVID-19, which started as a pandemic in 2019 and now is almost spread worldwide. Despite the difficulties and hospital staff including doctors becoming ill, the orthopaedic community has demonstrated its commitment to the improvement of bone health. Most common joint to get involved in multiple diseases is knee; hence many treatment practices were innovated through in this period.

Osteoarthritis of the knee: Nonoperative management

In osteoarthritis there are many methods to go for as till there is extreme wear and tear of the cartilage joint reconstruction is not advised. Initially management with knee strengthening exercises and calcium supplements for osteoporosis have given benefit.

Platelet-rich plasma has become increasingly available for the treatment of knee osteoarthritis. However, when costs are considered, a recent report indicated that platelet-rich plasma injections are not cost-effective primarily because there is no sound clinical efficacy in improving pain relief and function or delaying the need for TKA [1].

Unicompartmental knee arthroplasty (UKA)

UKA Compared with TKA - In a multicenter study, revealed that patients who underwent UKA had a shorter median hospital length of stay (1 day) compared with patients who underwent TKA (2 days) ($p < 0.001$). This study also showed that patients who underwent UKA had fewer periprosthetic joint infections (PJIs) (odds ratio [OR], 0.50) and reoperations (OR, 0.40) within 90 days after the surgical procedure than patients who underwent TKA [2].

Primary TKA

A long-term (27 years) follow-up trial revealed that there were no significant differences in patient-reported outcomes, aseptic loosening, osteolysis, or survival between mobile-bearing and fixed-bearing TKAs in patients younger than 60 years of age [3].

Multiple technologies attempt to improve the performance and results of TKA. Robotic-assisted TKA provides improved precision between the preoperative plan and the final execution of cuts and insert thickness selection. A meta-analysis of RCTs comparing computer-navigated TKA with conventional TKA in terms of patient-reported outcomes did not conclusively support the superiority of navigated TKA [4].

Revision TKA

Rotating-hinge components are also part of the revision armamentarium. In a study from the United Kingdom of 41 patients, Wignadasan., *et al*. revealed that rotating-hinge implants had a survival rate of 90.2% at a minimum follow-up of 10 years, which is encouraging for complex revision cases [5].

PJI is simply devastating. A high concordance between aspiration cultures and intraoperative cultures, but the authors strongly recommended that surgeons collect multiple tissue samples for culture in order to maximize the ability to diagnose polymicrobial infections. For the treatment of chronic PJI, single-stage revisions appear to be associated with better patient-reported outcomes when compared with 2-stage revisions, without significant differences in morbidity or mortality [6].

Finally, to conclude the recent advances help us to update the treatments protocols and bring better outcomes.

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