“Partial extensor mechanism allograft reconstruction for chronic patellar tendon disruption shows superior outcomes in native knees when compared to same technique following total arthroplasty”: several questions

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Dear Editor,

With great interest, we read the paper entitled “Partial extensor mechanism allograft reconstruction for chronic patellar tendon disruption shows superior outcomes in native knees when compared to same technique following total arthroplasty” published online on Aug 23, 2018, in *International Orthopaedics*. Fiquet et al. [1] concluded that reconstruction using extensor mechanism allograft in the setting of chronic PT rupture was excellent for native knees at a minimum follow-up of 24 months while results were less satisfactory in the total knee arthroplasty (TKA) group because of the substantial rate of failure. Certainly, the findings of Fiquet et al. will be significant for clinicians. However, there are still several questions that we would like to communicate with the authors.

1. Knee stiffness is mostly caused by joint immobilisation [2]. Long-term immobilisation of the knee joint leads to fibrotic exudation of intra-articular serous fluid, resulting in adhesion of the periosteum and suprapatellar bursa as well as affecting tibia activity. Arthrolysis or quadricepsplasty was usually used for knee stiffness treatment [3, 4]. The author claimed that the knee of post-operation patient was immobilised in a cast in extension and no passive mobilisation was allowed until two months after surgery. When the cast was removed, passive ROM was limited at 70° for three weeks then 90° for six weeks. Did the author performed arthrolysis or quadricepsplasty during the process?
2. The patella is the largest sesamoid, roughly triangular with obtuse upper edge and pointed lower edge. In this

paper, the allograft patella was cut in the shape of an hourglass (wide proximally and distally and narrower in the middle) using an oscillating saw. Changes in the shape of the tibia may affect the patellofemoral joint. The author changed the physiological shape of the tibia. Does this affect the patellofemoral joint? Is there any complication of the patellofemoral joint after surgery?

3. In this paper, sex ratio (M/F) is 1/8 in TKA group and 3/5 in native knee group, and mean age (years) is 68 (53–87) in TKA group and 51 (23–87) in native knee group. The difference of sex ratio and mean age between the two groups is too large. Does this comparison make sense?
4. This report was a single-centre study with a too small sample size (nine patients in TKA group and eight patients in native knee group), which may lead to type II error. So multi-centre studies with large sample should be further examined.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

References

1. Fiquet C, White N, Gaillard R et al (2018) Partial extensor mechanism allograft reconstruction for chronic patellar tendon disruption shows superior outcomes in native knees when compared to same technique following total arthroplasty. *Int Orthop*
2. Lenssen AF, Crijns YH, Waltje EM et al (2006) Effectiveness of prolonged use of continuous passive motion (CPM) as an adjunct to physiotherapy following total knee arthroplasty: design of a randomised controlled trial. *BMC Musculoskelet Disord* 7(1):15
3. Judet R (1959) Mobilization of the stiff knee. *J Bone Joint Surg (Br)* 41:856–857
4. Thompson TC (1944) Quadricepsplasty to improve knee function. *J Bone Joint Surg Am* 26(1):366–379

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