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We would like to thank the authors for their recent publication “Arthroscopic biological internal bracing with remnant repair for subacute ACL femoral avulsions”[5]. The authors present a conceptually great technique providing the orthopedic community with an additional alternative approach to treat proximal anterior cruciate ligament (ACL) tears. This technique is performed using a 7 – 8 mm hamstring autograft to provide a biological augmentation to the proximally torn ACL, which is refixed femorally using a suture anchor in the case of a type I tear, or in the presence of a type II tear the autograft is “tunneled” through the stump.

We agree that the modern-day treatment algorithm of ACL injuries should be based on a patient-individualized decision process and strongly feel that providers should be able to draw upon the complete, modern-day ACL surgeon’s armamentarium including ACL primary repair (ACLPR), repair with augmentation and reconstruction (ACLR)[8]. The indication for ACLPR or repair with augmentation should be based on the tear type tissue quality and patient age, to name the most critical variables[13].

We also have some constructive criticism of this work, as it seems to us that the literature review that was performed for this work was incomplete and has led to inaccurate statements. First, the authors claim that this technique is unique, however we wish to point out that van der List and DiFelice et al.[10] published their “preservation first approach” in 2016 which included a repair with augmentation technique that significantly overlaps with the technique presented by Pardiwala and Lee et al.[5]. Following up on this, Gipsman et al. 2018[3] published a technical note of their approach, before Vermeijden et al. 2020[13] published an more extensive description of their preceding approach[10]. An acknowledgement of previously described techniques, and a thorough discussion of the technical distinctions, would serve the reader well to assess innovativeness more accurately and better evaluate clinical applicability.

Furthermore, the authors stated that “since ACL repair needs to be performed in the acute phase following injury, it has an increased risk of developing arthrofibrosis”. Our previously updated ACLPR technique is indicated for patients in the acute and chronic setting[7]. This indication is based on the outcomes of 113 patients treated with ACLPR at a mean of 22.3 ±77.0 weeks (range, 0.6 – 574.0), and 55% of the patients ≤6 weeks following injury, demonstrating low reoperation rates (3%) and no cases of arthrofibrosis[15]. In an additional study, comparing ACLPR to ACL reconstruction (ACLR), to assess early range of motion (ROM), again no case presented with arthrofibrosis, and significantly better early ROM was demonstrated for ACLPR[11]. Multiple authors have recently presented similar results in acute (<4 weeks), sub-acute and/or chronically injured patients[1, 2, 9, 15]. In addition, a recent meta-analysis pointed out that early ACLR using modern-day approaches, is not correlated with an increased risk of arthrofibrosis, disproving historical outcomes[14].

Finally, the authors claim that ACL repair cannot be performed in the subacute setting and therefore indicate ACL augmentation. However, an analysis specifically comparing patients undergoing acute (≤3 weeks) versus delayed ACLPR (>3 months) at a minimum of 2-year follow-up, showed no significant difference in failure rates (p > 0.999), and no cases of arthrofibrosis in either group[12], indicating that ACL repair is a valid treatment option when a proximal tear with good tissue quality is present, regardless of timing.

We agree with the authors that ACL augmentation using autografts has its valid indications. However, we recommend to not base this on timing. Delaying surgery can decrease likelihood of good tissue quality[4] and even potentially increase the risk of meniscus and/or chondral damage[6], but the possibility of repair should be based on tear location and tissue quality instead.

Once again, we wish to thank the authors for their valuable contribution and voice our agreement of the importance of ligament preservation procedures when treating ACL injuries. However, we believe that
ACLPR does not need to be limited to the acute setting. In addition, ACLPR performed for proximal tears with good to excellent tissue quality, has not been shown to be correlated with an increased risk of arthrofibrosis when treated acutely, and survival rates show equal results for acute and delayed interventions. It is important for readers to appreciate the overall literature on ACL healing and ACL repair, even in the case of a surgical technique study.
References


Declaration of interests

☐ The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

☒ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Gregory S. DiFelice reports a relationship with Arthrex Inc that includes: on the speakers bureau.