

Peer Review File

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Review Comments

Reviewer A

Authors reviewed this topic very well, except somewhat feeling tedious to read.

Reviewer B

I believe this article, besides not being innovative, tries to standardize and clarify lower limb reconstruction, and may deserve publication after some revisions and appropriate literature referencing.

Comment 1: line 103

I understand the concept of local perforator flaps, but I believe that the authors should underline how in the reconstructive ladder one need also to consider the role of foreign materials and plates. In such case, propeller flaps, with their potential risk of venous congestion and occasionally secondary healing, may be avoided and a free flap should be used.

please expand according to the following paper (and add ref)

Lower limb reconstruction involving osteosynthesis material: A retrospective study on propeller flaps outcomes.

Guillier D, Sapino G, Schaffer C, Borens O, Thein E, Bramhall RJ, di Summa PG.

Injury. 2021 Oct;52(10):3117-3123. doi: 10.1016/j.injury.2021.04.003. Epub 2021 Apr 7.

Reply 1: We agree, and this has been added into the text

Changes in the text: One must also consider that many of these defects are complex with possible foreign materials and plates underlying the reconstruction for bony fixation and stability. As such, propeller flaps, with their potential risk of venous congestion and secondary healing may be avoided and a free flap given higher priority in this context (16). (Page 8, lines 3-7)

Comment 2: line 110

I would underline how grafting on tendons (even with matrix) may lead to incomplete graft take. VAC dressing over the graft may significantly improve take.

Please expand citing

One-Stage Coverage of Leg Region Defects with STSG Combined with VAC Dressing

Improves Early Patient Mobilisation and Graft Take: A Comparative Study

Gianluca Sapino 1, Loise Lanz 1, Aurore Roesti 2, David Guillier 3, Sebastien Deglise 2, Giorgio De Santis 4, Wassim Raffoul 1, Pietro di Summa 1

Reply 2: We agree, and this has been added into the text

Changes in the text: Where knee arthroplasties have become extremely common operations, one does have to deal with the occasional infected arthroplasty. Sapino et. al found the pedicled chimeric gastrocnemius medial sural artery perforator flaps safer to re-raise compared to gastrocnemius muscle flaps as the skin paddle scarred more reliably and did not incur shrinkage (23) (Page 9, Lines 17 – 22)

Comment 3: line 164

please cite the biggest series of functional ALT+fascia lata

Reconstruction of complex soft tissue defects including tendons with anterolateral thigh flap extended to fascia lata: Long term recovery and functional outcomes.

di Summa PG, Sapino G, Cherubino M, De Santis G, Durand S, Zaugg P, Bauquis O, Raffoul W.

and expand on the possibilit to associate free flaps + free graft (e.g. Achilles tendon reconstruction)

GRAFT AND FLAP. A NOVEL ORTHOPLASTIC APPROACH TO ACHILLES TENDON SECONDARY RUPTURE.

Maruccia M, Tedeschi P, Caizzi G, Palmiotto F, Di Summa PG, Vicenti G, Moretti B, Giudice G, Elia R.

Plast Reconstr Surg. 2023 Apr 25. doi: 10.1097/PRS.0000000000010566. Online ahead of print. PMID: 37092978

Reply 3: These have both been cited.

Changes in the text: The anterolateral thigh flap has proven to be versatile in this respect with the concomitant harvest of the fascia lata, which can be folded and used to reconstruct tendinous structures (19). The fascia lata can be also harvested in isolation and used for compsite reconstruction of the Achilles tendon defect, with a turndown gastrocnemius facial flap which is less bulky (20). (Page 9, lines 10-14)

Comment 4: line 176

In the paragraph need for secondary procedure you should expand the field of infected TKA,

whivh usually need secondary procedures. please expand according to

“Muscle-only versus chimeric musculocutaneous gastrocnemius pedicled flap in complex orthoplastic reconstructions of the knee region: A retrospective study.

Sapino G, Guiller D, Osinga R, Martineau J, De Santis G, Steinmetz S, di Summa PG.”.

Reply 4: We agree, and this has been added to the text

Changes in the text: Where knee arthroplasties have become extremely common operations, one does have to deal with the occasional infected arthroplasty. Sapino et. al found the pedicled chimeric gastrocnemius medial sural artery perforator flaps safer to re-raise compared to gastrocnemius muscle flaps as the skin paddle scarred more reliably and did not incur shrinkage (23). (Page 10, Lines 17-22)