INVITED COMMENTARY

Together We are Stronger

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In their study, Chang et al. evaluated the outcome of multidisciplinary care after infrapopliteal endovascular revascularisation and free flap reconstruction in diabetic patients.[1] They concluded that combined endovascular revascularisation of the below knee vessels and free tissue transfer could be considered a viable option for such diabetic patients.

This is a very interesting study, but the authors assessed the severity of the wound according to Wagner—Meggit classification.[1] As this classification is only based on lesion depth, it would have been interesting to use WIFI classification, which is an integrated graded scoring classification system based on wound (W), ischaemia (I), and foot infection (FI).[2] Each factor is graded as 0 (none), 1 (mild), 2 (moderate), or 3 (severe). On the basis of these three scores, patients are further assigned to four threatened limb clinical stages corresponding to the estimated risk of amputation. Consequently, the predicted benefit of any revascularisation procedure can be derived from the WIFI score. Moreover, the risk of amputation increases as the presenting disease burden progresses from stage 1 (very low risk) to stage 4 (high risk). As such, the WIFI classification, which well reflects the evolving natural history of limb threatening disease in clinical practice, would have been very informative in a study evaluating the outcome of infrapopliteal endovascular revascularisation and free flap reconstruction in diabetic patients.

In recent years, selection of the best artery for revascularisation has been the subject of discussion and a new concept, the angiosome concept, has been introduced, supporting the idea that the clinical outcome is better when angiosome targeted rather than non-targeted revascularisation is performed.[3] The benefit of direct revascularisation of the ischaemic area, especially in terms of wound healing, is even more pronounced in diabetic patients undergoing endovascular interventions.[3,4] Moreover, when performing free flap reconstruction, choosing the artery closest to the lesion also allows for easier reconstruction. However, target vessel selection typically depends on the quality of the outflow vessel and its runoff, and direct revascularisation cannot be performed in some cases. Consequently, choosing the artery closest to the lesion as the target artery would allow easier reconstruction, as adequate perfusion to the required ischaemic angiosome is not always possible.[3—5] In their study, Chang et al. mentioned that the target artery to be revascularised was discussed between the vascular and the reconstructive surgeons, and that the artery closest to the lesion was chosen if possible.[1] However, a flap with a longer pedicle was needed to allow reconstruction when the revascularised artery was distant from the soft tissue defect. Consequently, this may have affected the results.

In conclusion, this is a really interesting study highlighting that the treatment of critical limb ischaemia with a soft tissue defect in diabetic patients requires a sustained effort towards limb preservation. As such, multidisciplinary care associating free tissue transfer in conjunction with endovascular procedures can be proposed.

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