

Donor-Site Outcomes for the Osteocutaneous Radial Forearm Free Flap

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We read with great interest the article by Satteson et al on their donor-site outcomes after harvesting of the osteocutaneous radial forearm free flap.¹ While the fibula has been the gold standard in head and neck defects requiring vascularized bony augmentation, the radius can be a valuable alternative in specific circumstances for the mandible and maxilla. Scenarios where the radial forearm osteocutaneous free flap may be indicated include the patients in whom marked atherosclerotic changes of the lower extremities preclude a fibula, older patients in whom the fibula may cause a prolonged recovery, and situations where there is no requirement for implant-based dental rehabilitation. The main fear when harvesting part of the radius is subsequent fracture of the radius. To reduce the likelihood of this, prophylactic stabilization or osteosynthesis/fixation of the remaining radius should be performed (either by plating or external fixator). Our department's own technique with prophylactic fixation has been practiced since 2004. This involves placing an intramedullary fixation nail after the harvest with what is termed a Rush nail (► **Figs. 1** and **2**). It is a quick, easy, and cheap procedure, as explained in detail by Knezević et al.² From January 2004 until May 2017, 51 patient had an osteocutaneous radial forearm free flap raised, mainly for the reconstruction of the mandible after oncological resections. In four cases, maxillary reconstruction was performed with the radius. The Rush intramedullary fixation nail was inserted in all patients for prophylactic

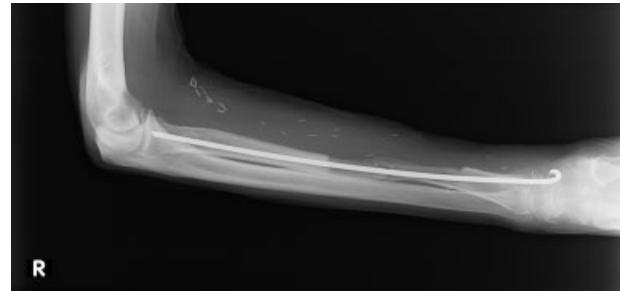


Fig. 1 Two months postoperative X-ray of the forearm after stabilization with Rush nail, left lateral projection.

stabilization, and no fractures were recorded to date. Additionally, the postoperative protocol does not require prolonged casting or immobilization of the forearm. This technique has been found to be a valuable and simpler alternative to plating of the radius. The method itself is safe, quick, and relatively simple.

Regarding other donor-site complications, we agree that there are no significant differences between an osteocutaneous and a fasciocutaneous radial forearm free flap. Exposure of the tendons and poor skin graft healing are the most frequently reported complications. With the advent of suprafascial raising of the radial forearm free flap, these risks have been minimized.

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Fig. 2 Two months postoperative X-ray of the forearm after stabilization with Rush nail, posteroanterior projection.

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