

Free Fibula Transfer for a Radial Shaft Nonunion

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Background

Upper extremity nonunions with large bony defects are complex problems that require sophisticated decision making. This video highlights a technique used to treat a patient with a radial shaft nonunion via free fibula transfer.

Purpose

The case presentation of a 70-year-old woman with a 5-cm radial shaft fracture nonunion is reviewed. The video highlights the anatomy of the forearm and leg, the critical steps for raising the free fibula flap, and bony fixation of the graft.

Methods

After a thorough discussion of the risks, advantages, and prognosis, the patient elected to proceed with a free fibula flap for management of the bony nonunion. This video demonstrates the surgical technique and reviews the pearls and pitfalls and postoperative management for this procedure.

Results

Postoperatively, the patient went on to achieve union with functional range of motion and no pain.

Conclusion

Vascularized free fibula autograft is a viable surgical treatment option for large bony defects of the upper extremity.