IMPLANT SUCCESS IN IRRADIATED FREE FIBULA FLAPS FOR MANDIBLE RECONSTRUCTION

A. Varidel, M. Kim, D. Leinkram
Westmead Hospital, Sydney, Australia

Background
Free fibula reconstruction of segmental mandible defects is a commonly accepted method of rehabilitation following ablation for head and neck squamous cell carcinoma. Fibula reconstruction is made particularly useful by its ability to successfully osseointegrate dental implants, thus allowing for improved functional and aesthetic rehabilitation. However, in cases requiring post reconstruction radiotherapy, the intention to continue with implant placement should be re-evaluated. While it is commonly understood that irradiated tissues have much poorer healing qualities than non-irradiated tissues, very little evidence exists as to the specific success rates and risks of placing implants in these neo-mandibles.

Methods
Three databases were searched for all papers related to implant placement in irradiated free fibula mandible reconstructions.

Findings
Limited studies considered implants in irradiated fibula flaps. Retrospective studies appear to support that these implants have over 80 percent survival. At this stage, the specific associated complications are largely unreported.

Conclusion
Current data on implant success in irradiated free fibula mandible reconstructions is limited. However, present literature suggests that these implants pose a reasonable success rate. This piece found that the survival of implants in these patients is certainly less than the accepted success of implants in non-irradiated free fibula reconstructions. However, the authors of this paper propose that continuing with implant placement in irradiated fibulas is a reasonable and somewhat reliable option for oral rehabilitation.