

**HEAD AND NECK**

Barbed suture in oral cavity reconstruction: preliminary results

La sutura barbed nella ricostruzione del cavo orale: risultati preliminari

E. CROSETTI¹, A. CARACCILO¹, G. ARRIGONI¹, E. DELMASTRO², G. SUCCO¹

¹ Head and Neck Oncology Service, Oncology Department University of Turin, Candiolo Cancer Institute - FPO, IRCCS, Candiolo (TO), Italy; ² Division of Radiotherapy, Candiolo Cancer Institute - FPO, IRCCS, Candiolo (TO), Italy

SUMMARY

The purpose of this study is to evaluate the efficacy and safety of unidirectional barbed suture (V-Loc) compared to a standard monofilament stitch (Vicryl) in suturing of a free flap to local tissue after head and neck surgery for squamous cell carcinoma of the oral cavity. Complication rates, operative closure time, length of hospitalisation and costs were evaluated. The study cohort (group A) of 20 consecutive patients reconstructed using barbed stitches for suturing was prospectively compared to a control cohort (group B) of 20 consecutive patients reconstructed using conventional vicryl stitches. All patients were affected by squamous cell carcinoma of the tongue and underwent different types of glossectomy and reconstruction with free flaps. This analysis demonstrates the efficacy of the barbed suture compared with a standard monofilament stitch in terms of lower complication rate (15% group A, 30% group B), intra-operative closure times (486 minutes group A, 517 minutes group B), and length of hospitalisation (average length of hospitalisation 14.60 days group A, 16.85 days group B). These factors coupled with the use of a lower number of stitches compared with the standard stitches may compensate the increased cost of the barbed suture. In conclusion, this study demonstrates that the use of unidirectional barbed stitches for suturing of a free flap to the recipient site reduces the complication rate, principally in terms of dehiscence and fistula incidence, and reduces intra-operative time and length of hospitalisation. Based on these results and on the literature, the use of unidirectional barbed stitches can be considered as a safe and efficient alternative to conventional stitches for suturing of free flaps to local tissue.

KEY WORDS: Barbed suture • Free flap • Head neck reconstruction • Oral cavity cancer

RIASSUNTO