Cartilage Graft in the Reconstruction of the Pinna of the Ear

Injerto de cartílago en la reconstrucción del pabellón auricular

Description

Complete excision of a neoplastic lesion on the pinna of the ear may affect the cartilaginous skeleton of this structure (Fig. 1). In contrast to the situation with other facial structures, surgery to the ear has few functional repercussions. However, cosmetic changes due to scar retraction during the healing process are common.

Substitution of the cartilage is possible using alloplastic materials or autologous cartilage grafts.

Cartilage grafts can be of elastic cartilage (the concha or antihelix of the ear) or of hyaline cartilage (from the nasal septum or costal cartilage). Elastic cartilage is ideal for reconstruction of the pinna as it retains its original shape after the healing process. Hyaline cartilage is harder and more resistant but less malleable, and therefore less suitable for this site.

A cartilage graft must be of a similar shape to the defect and of a slightly larger size. If possible, the graft should be fixed to the perichondrium; otherwise the cartilage is introduced into dermal "pockets" and fixed with resorbable suture (Fig. 2). Cartilage grafts are used in combination with local flaps for skin cover.

The survival of cartilage grafts is excellent, with reported rates of around 95% at 20 years. Survival depends on several factors: blood supply to the recipient site, size of the graft, manipulation of the cartilage, postoperative trauma, and the presence or absence of overlying and underlying perichondrium.
The surgical technique for cartilage grafts is simple and the results are very good. These grafts are indicated for small and medium-sized defects that cause functional and/or cosmetic impairment due to the absence of the cartilaginous support. The technique is usually performed in a single operation and carries no additional costs as no alloplastic materials are used.

Acknowledgments

We would like to thank José Lavigne Pérez for his invaluable help in the production of this video.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.adengl.2013.02.006.

References


B. González-Sixto,* A. Pérez-Bustillo, E. Samaniego, M.A. Rodríguez-Prieto
Servicio de Dermatología, Complejo Asistencial Universitario de León, León, Spain

*Corresponding Author.
E-mail address: bgonsix@aedv.es (B. González-Sixto).