

## Abstract

### **Fate of mucosal healing in transplanted deep frozen irradiated tracheal homograft.**

Kunachak S, Vajjaradul Y, Rerkamnuaychok B, Praneetvatakul V, Rochanawutanon M. *Fate of mucosal healing in transplanted deep frozen irradiated tracheal homograft.* Otolaryngol Head Neck Surg. 2007 Jun;136(6):1010-3. Comment on: Otolaryngol Head Neck Surg. 2000 Jun;122(6):911-6.

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**OBJECTIVE:** Deep-frozen irradiated tracheal homograft has been successfully employed for subglottic-tracheal reconstruction, as in our previous report. Morphologically, though the transplanted site appeared to have good mucosal healing, the fate of the donor mucosa is not known. The objective of this study was to determine the survival of the mucosa of donor trachea. **STUDY DESIGN AND SETTING:** University hospital-based, prospective study. **METHODS:** Thirty samples from six sets of specimens, each set consisting of five samples of the tracheal mucosa, were studied. Of five samples in each set, 2 were taken from donors, one from a recipient, and another two from the transplanted sites, eight months postoperatively. The samples in each set of specimens were genetically matched by the process of DNA fingerprinting. Histological studies were done on the mucosa of donor and transplanted sites. **RESULTS:** The study demonstrated incompatibility between samples from recipient and transplanted site, and incompatibility between preoperative donor and recipient samples in all sets of specimens. **CONCLUSION:** The mucosa of donor trachea did not survive at the transplanted site. The apparently normal postoperative mucosal lining actually represents migration of the recipient mucosa. **SIGNIFICANCE:** The fate of transplanted donor tracheal mucosa is elucidated, and may substantially explain the mechanism of rejection resistance.