Microsurgical release of the cover and fibrin glue implantation for treatment of sulcus and scars.

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Abstract:

Objectives: Sulcus vocalis and scars of the vocal folds reduce pliability of the cover impairing vibration. Severity of dysphonia is directly related to magnitude of structural damage. The purpose of surgical treatment is to restore anatomy in order to re-establish function. The aim of the study was to evaluate the effectiveness of microsurgical liberation of scars and placement of fibrin glue implants into the subepithelial space of the vocal folds to improve pliability. Methods: Fifteen patients (age range, 13-69 years) with diagnosis of sulcus and/or scars were classified into 3 groups, according to severity of structural damage: Group 1: Unilateral, localized lesions with minimal subepithelial compromise. Group 2: Sulcus and/or scars with subepithelial fibrosis. Group 3: Severe scarring. Microsurgical liberation of scar tissue and placing of fibrin glue implants were performed. Fibrin glue components are mixed until solidified. An implant is tailored and it is placed into the subepithelial space. All patients were evaluated preoperatively and postoperatively with stroboscopy. Voice quality changes were assessed by means of the Voice Handicap Index 30 questionnaire. Results: The technique offered significant vibratory pattern and voice quality improvement in group one and better vibratory pattern and moderate voice quality improvement in group 2. In group 3, although some vibratory improvement was achieved, voice quality results were not satisfactory in 4 out of 5 patients. Conclusions: The technique described is useful for treatment of vibratory impairment caused by sulcus and/or scarring of the vocal folds in which structural damage is limited. In extensive lesions results show little improvement.