Autologous Cartilage Intracordal Injection in Unilateral Vocal Fold Paralysis

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Objectives: The methods to treat glottic incompetence include thyroplasty type I, arytenoid abduction, and intracordal injection using various materials. The intracordal injection is easy and simple and does not require skin incision. In general, the grafted cartilage shows a high survival rate, a low absorption rate and small voluminous change. The authors performed intracordal injection of minced autologous auricular cartilage and fat using a Bruning injector in unilateral vocal cord palsy. We evaluate the effect and safety of autologous auricular cartilage intracordal injection.

Study Design: Retrospective study.

Methods: Auricular cartilage was obtained by incising tragus vertically and it was minced with a scalpel and #15 blade. About 2g of abdominal fat was obtained by small periumbrical incision and cut into small pieces. The minced cartilage was put into a 1ml injector and then the injector was filled with fat. The operation was conducted under laryngeal microscope. Minced cartilage was injected into the vocalis muscle at the junction of the middle and posterior third of the vocal fold. In three cases, we performed autologous cartilage intracordal injection.

Results: We observed no postoperative complications, such as dyspnea, granulation, inflammation, in any of the cases. The voice was improved compared with the voice prior to operation in all cases.

Conclusion: Although the cases are still limited and the observation period is short, we suggest that the autologous cartilage using the auricular cartilage is the ideal and new effective augmentative material in vocal cord palsy.

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