

## Intracordal Teflon injection: a question of timing

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### Abstract

Intracordal Teflon injection is commonly performed for recurrent laryngeal nerve palsy. It is generally agreed that injection should not be performed for a period of six months from the onset of an 'idiopathic' paralysis. A case is presented in which recovery occurred late, after intracordal injection, with unfortunate results. Successful removal of the Teflon is described. The advisability of a longer wait before surgery for 'idiopathic' recurrent laryngeal nerve palsy is considered.

### Introduction

Many surgical techniques have been described for the treatment of the immobile abducted cord. The most widely practiced today is that of intracordal injection with Teflon paste, which has replaced Brüning's hard paraffin paste of 1911 and the cartilage paste of the 1950s. Details of the technique are well described and will not be considered here (Sadek *et al.*, 1987).

This paper considers the recommended timing for intracordal injection in the light of a case in which the usual guidelines proved inadequate.

### Case report

A 37-year-old female, non-smoker presented with a one-month history of dysphonia following an upper respiratory tract infection. She was found to have an immobile right vocal cord. Clinical examination and appropriate investigation failed to reveal a cause. She was referred for speech therapy. Six months from the onset of symptoms there was no appreciable improvement in her voice. She was, therefore, admitted for an intracordal Teflon injection. She had an excellent result with complete restoration of her voice to normal. However, within

one month, her voice had again deteriorated. Indirect laryngoscopy revealed recovery of movement of the paralysed cord. The patient was fully investigated with stroboscopy and video recording using a Brühl and Kjar Rhinolarynx Stroboscope (type 4914). A significant air leak was noted anterior and posterior to the bulk of the Teflon injection, together with complete absence of the mucosal wave form.

Seventeen months after injection, the Teflon implant was successfully removed using the CO<sub>2</sub> laser (Sharplan 733), (Figs. 1 & 2). Her voice had returned completely to normal when she was reviewed three months later, and stroboscopic examination revealed good glottic closure with a normal mucosal wave form.

### Discussion

Intracordal Teflon injection for the treatment of unilateral cord palsy has a high success rate with little morbidity (Sadek, *et al.*, 1987).

The correct timing depends upon the aetiology of the paralysis: if due directly to malignancy, or as a consequence of the surgical treatment of bronchial malignancy, it is recommended that Teflon injection should be carried out as early as possible in

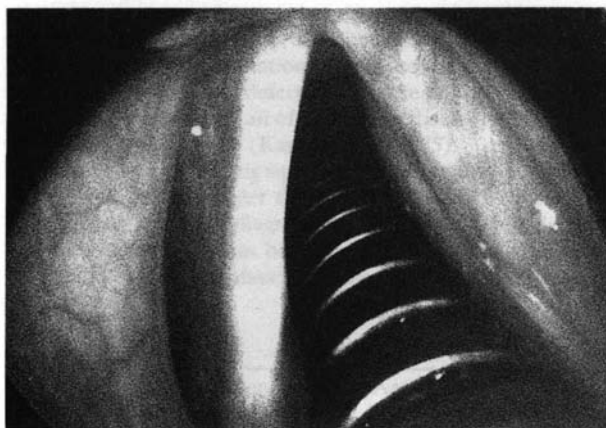


FIG. 1

Bulky right vocal cord seen at microlaryngoscopy.

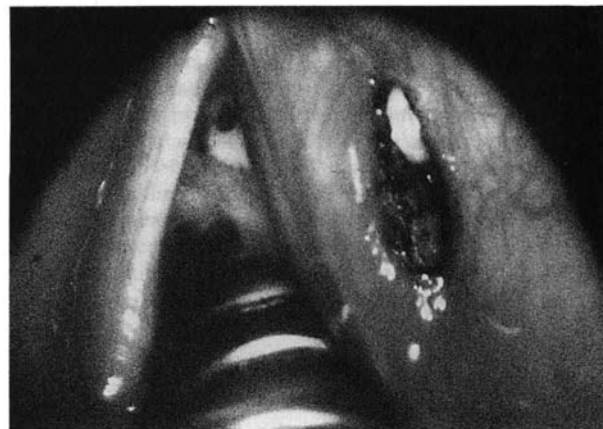


FIG. 2

Appearance after laser to the superior surface of the bulky cord. The white teflon is visible, and was easily removed.

order to relieve the patient of the distressing symptoms of dysphonia and aspiration (Croft *et al.*, 1986; Howard, 1987; Sadek *et al.*, 1987).

When paralysis has been due to thyroidectomy, Sadek and his colleagues (1987) recommended that a period of up to 12 months should elapse before injection, as recovery of the recurrent laryngeal nerve may still occur within this period.

In most large series of patients presenting with vocal cord palsy, approximately one quarter are deemed 'idiopathic', no cause being found (Willatt and Stell, 1989). In such cases speech therapy is recommended to encourage laryngeal compensation, while the possibility of spontaneous recovery is awaited. Most authors recommend a wait of six months before Teflon injection in those which fail to recover cord mobility or achieve adequate laryngeal compensation (Arnold, 1962; Croft *et al.*, 1986; Howard, 1987; Sadek *et al.*, 1987).

In a prospective study of 42 'idiopathic' vocal cord palsies, (of which four were subsequently found to have been caused by occult malignancies), Willatt and Stell (1989) found that one recovered after 12 months. They stressed the importance of remaining alert to the possibility of an underlying malignancy unless vocal cord mobility recovered.

We would suggest that a 12-month wait before Teflon injection for 'idiopathic' cord palsy, whilst perhaps delaying treatment in the majority of patients, might prevent a few patients

from experiencing the difficulties of late recovery after intracordal injection.

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