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Short communication

The tracheostomal washer: a simple aid for tracheo-oesophageal speakers with a large tracheostome

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Abstract
A simple device is described which enables the patient with a tracheo-oesphageal valve and a large tracheostome to easily occlude the stoma, avoiding the need for stomaplasty.

Key words: Speech, oesophageal; Larynx, artificial

The tracheostomal washer

A variety of washers were made in stainless steel, rigid plastic and flexible rubber in a number of different shapes and sizes. The most effective was 32 × 35 mm in size with a 9 mm hole in the centre and made of flexible 3 mm thick rubber. This material was light in weight and flexible enough to conform to the shape of the patients neck when in use.

The device was attached to the skin above the tracheostome by a small piece of surgical tape. On normal respiration air passed through the hole and around the periphery with ease (Figure 1a). When the patient wished to speak, he placed his finger over the hole pushing the washer down into the soft tissue around the stoma to give an airtight seal (Figure 1b).

There was a noticeable improvement in the quality and fluency of speech when using the washer in conjunction with a Provox valve. Less digital pressure was required to give an air-tight seal, resulting in less compression of the pharynx around the P-E segment and smoother speech.

If the tracheostome is too large, this simple device greatly improves the seal around the stoma and eases speaking when the patient wears clothing around the neck.

Discussion

Tracheo-oesophageal puncture with some form of prosthetic valve is the preferred form of speech restoration following laryn-

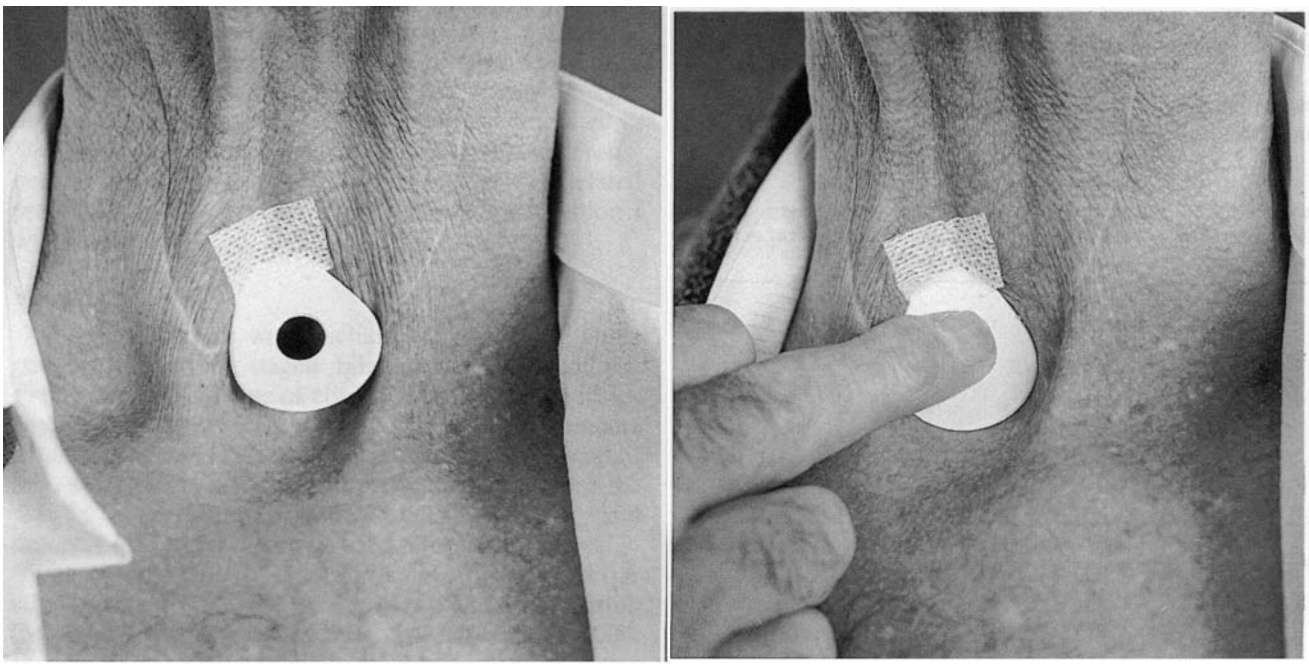

Fig. 1
(a) The washer *in situ*; (b) the washer occluded for speech.

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gectomy in many units. Thirty-eight per cent of patients undergoing laryngectomy in the USA receive a valve (Webster and Marshall, 1990) and increasing numbers of British laryngectomees are also enjoying the benefit of this mode of speech.

There is inevitably a compromise between a large stoma giving good access and airway, and a stoma small enough to be occluded easily for speech. An inappropriate stoma size was a problem found in 8.5 per cent of patients (Garth *et al.*, 1991), though the problem is usually a small rather than a large stoma. Although a number of patients had a stoma that was larger than ideal, only one in this series required a reduction stomaplasty.

Blom *et al.* (1986) found that patients using a tracheostomal valve rather than a finger to occlude their stoma had significantly more acceptable speech. It may be that the lack of digital pressure near the P-E segment contributes to better speech. It certainly seems that the stoma washer aids fluent speech by removing the need for excessive finger pressure.

The stoma washer described here is cheap and simple to use, enabling the patient with a large stoma to achieve effective and more fluent speech without the need for further surgery. There are also many patients with poor manual dexterity, but otherwise suited to a valve, who may be helped by this aid to tracheostomal occlusion.

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