Lubrication of the Vocal Mechanism

A speaking or singing voice may fail when there is nothing wrong with the structure of the pharynx or larynx, but only a defect in the essential lubrication of the mechanism - and especially of the vocal cords. When one considers these rapidly vibrating structures, it seems clear that they can only be expected to withstand such exercise if they are lubricated by an adequate amount of thin mucus, especially from glands in the laryngeal ventricles. It is also advantageous if the whole of the pharynx is well lubricated. This is self-evident if one listens to a speaker in excellent voice except for his having to pause at intervals to 'clear his throat'. It is also noted in the nervous orator with his ineffectual sips of water taken to relieve dryness. Considering certain singers’ throats over a period of years, I have often noted that those which are well lubricated survive longer. The same, surely, is true of any other piece of machinery. With this in mind, I invariably consider lubrication when examining the throat of a professional voice user.

Many conditions which result in lubrication defects will be familiar, but will be listed briefly for completeness. They include emotional factors (particularly ‘stage-fright’), nose and sinus conditions, excessive smoking and drinking, the sicca syndrome, medicaments (such as ‘cold cures’) which inhibit mucous and salivary secretion, and also poor air-conditioning. Tracheo-bronchial secretions may enter the larynx from below and impede lubrication.

We have all seen films of the phonating and singing larynx, and discussion has usually been concerned with cordal configuration and movements. I have been particularly interested to observe the jets of mucus squirted onto the cords by the ventricular glands. Surely the amount and consistency of this mucus is important, and how could the cordal epithelium survive without it? This natural lubricant should be adequate in quantity and thin in consistency. The patient will often complain of too much mucus, when actually the trouble is that there is too little mucus and it is too thick.

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Treatment. The management of many of these conditions is straightforward and need not be considered here. I will therefore mention only those medications which may not be so well known and which I have found helpful to my own patients. Even if more obvious trouble, such as vocal nodules or other vocal-abuse damage is evident, improving lubrication may greatly help and can be attempted without having the artist miss performances.
Systemic medicaments: My most frequent prescription is for ‘Organidin’ (Ward Blenkinsop), two tablets four times a day for two weeks, and repeated every few months. This is an iodide compound and stimulates mucous glands.

If inspissated tracheo-bronchial secretions cause trouble they may be thinned by giving ‘Bisolvon’ (Boehringer, Ingelheim) at a high dose of two 8-mg tablets three times a day for a week.

Very dry mouths may be moistened by stimulating salivary glands with 6–12 mg of pilocarpine nitrate taken by mouth about an hour before performing. It is an unpleasant treatment as it causes sweating and flushing and may stimulate peristalsis.

Local treatments: These may be delivered to the larynx to wash out sticky mucus using a de Vilbiss spray and my own laryngeal syringe. I frequently add them to my 0.5-percent solution of ‘BenadryP’ (diphenhydramine hydrochloride, Parke-Davis) which, used in this way, acts not as an antihistamine but as an invaluable, mild vasoconstrictor and analgesic. One drop of sodium lauryl sulphonate to about 10 ml of the solution adds a detergent action.

If there is very inspissated mucus in the glottis I add a tablet of ‘Ascoxa’ (Astra), which contains ascorbic acid, sodium percarbonate, copper sulphate and menthol. The resulting solution, if warm, is a useful mucolytic.

The 3% of alcohol and 6% of glycerine in normal saline, as devised by Proetz for use in the nose, also makes a harmless lubricating spray.