Reconstruction for Speech and Swallowing

Steven Kang,MD and Alice Lin, MD

Background

Head and neck tumors have the potential to adversely affect two very important functions: speech and swallowing. Speech and swallowing are affected by tumors of the mouth [oral cavity] or throat [pharynx and larynx] and these deficits increase after treatment of the tumor with surgery or radiation. Fortunately, some of these effects can be lessened with modern reconstruction combined with post-treatment speech and swallow therapy. Although not achieved by all, many patients can speak and eat well again.

Speech and swallow therapy is integral to improving the chances of normal speech and normal swallowing and should be started as soon as the patient is able to participate in the exercises. The earlier therapy starts, the better the outcome. However, therapy should not start until the tissues are reasonably healed. Speech and swallow therapy is performed by a speech-language pathologist (SLP).

Diagnosis and workup

Several tests are helpful in determining the amount of swallow dysfunction and which therapies would be most helpful.

A Video Swallow Study sometimes also referred to as a Modified Barium Swallow [MBS] is where the patient is given different food textures to swallow while Xray's are taken to see how the liquid or food moves through the mouth and throat. During this study, strategies can be tried to improve the swallow and the Xray can show which strategies are the most effective.

A Fiberoptic Endoscopic Evaluation of Swallowing [FEES] is where a small camera the size of a spaghetti noodle is passed through the nose to look into the throat while different consistencies of liquids and foods are swallowed. The camera will allow a direct view to diagnose any problems and see which strategies improve the swallow.

When liquid or food goes into the airway or lungs, this is referred to as "aspiration." Making sure there are no signs of aspiration is an important part of the evaluation of swallowing.

Treatment

Various exercises will be given to the patient by the SLP as well as an exercise schedule. These exercises should be done as often as possible and maintain oral nutrition may become a full-time job. It may be normal to require an hour or more to finish a meal. In addition to the exercises, manual massage of the neck and throat structures may be recommended to help break up scar tissue from the treatment and improve the mobility of the throat.

If the patient is able to maintain adequate nutrition and weight by taking liquids and/or food by mouth, the use of assistive devices such as a feeding tube in the nose or stomach may be

avoided. Liquid supplements such as nutritional shakes or protein shakes may be helpful in getting sufficient calories. If a nasal or gastric feeding tube is needed to maintain hydration and/or nutrition, swallow therapy should continue while this is in place so that this need does not become permanent.

Prognosis

The duration of therapy is difficult to predict and varies from patient to patient taking from a few weeks to several months. In some cases, the inability to swallow safely is permanent. The surgeon and the SLP should be able to give realistic goals and expectations throughout the therapy process.