

# Clicking in the Throat

## *Cinematic Fiction or Surgical Fact?*

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**T**he complaint of a clicking in the throat when swallowing is uncommon but very discomforting and painful for those who experience it. It is such an unusual complaint that symptoms may be dismissed as psychogenic because a cause for the problem may not be readily apparent. We present a series of 11 cases in which all patients had an audible clicking or popping noise in the throat associated with neck and throat pain when swallowing or turning the neck. The most helpful diagnostic procedure was careful examination and palpation of the neck while the patient swallowed to localize the side and source of the clicking. Laryngeal computed tomographic (CT) scans helped in some cases to demonstrate thyroid-cartilage and/or vertebral body asymmetry. Each case was treated with surgery of the neck and larynx to trim the portion of the thyroid cartilage causing the clicking. In most cases the superior cornu of the thyroid cartilage projected posteriorly and medially. Surgery was successful in all cases to eliminate the symptoms. Though an uncommon complaint, our experience suggests that the clicking throat is a surgically treatable problem.

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In the 1944 movie *Up in Arms*, the actor Danny Kaye, in his motion picture debut, plays a hypochondriac who finds all sorts of ailments in himself and others. Despite his protests of illness, he is drafted into the army. In one scene, while he is off duty on an outing with his companions, he confronts a street vendor, exclaiming, "What's that clicking in your throat?" The joke is repeated in several other scenes throughout the movie. This symptom, whether real or imagined, is so unusual that the famous comedian apparently found it an amusing addition to his script. However uncommon or unbelievable, we have found that this symptom can indeed occur in association with swallowing, throat pain, or turning the neck.

We describe a series of 11 patients who presented with a peculiar disturbance of swallowing and/or throat pain. They frequently complained of a clicking or popping noise and a rubbing or grind-

ing sensation in the throat when swallowing. It was frequently painful. When the cause was identified and surgically corrected, the symptoms were eliminated.

### DATA AND RESULTS

The patient series is given in the **Table**, which summarizes the patient complaints and procedures performed. This includes patients from 2 institutions: 7 from the University of Utah, Salt Lake City, and 4 from the University of California, Los Angeles (UCLA). Five patients noted the onset of their symptoms at a traumatic event, including 2 motor vehicle crash-related neck injuries, 1 sledding crash-related injury, 1 wrestling-related injury, and 1 injury from a fall. Two patients noticed their symptoms after intubation for a surgical procedure (1 after microlaryngoscopy and 1 after cesarean section).

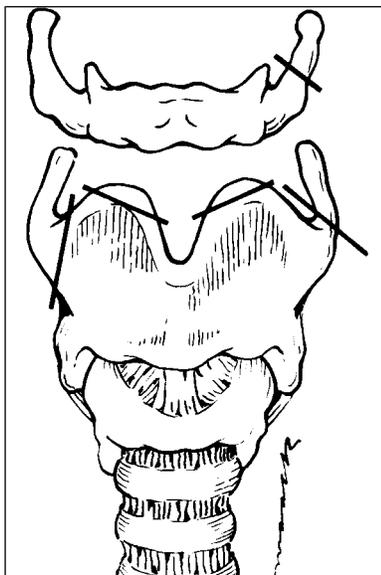
**Figure 1** shows the locations of the clicking and portion of thyroid cartilage operated on in this series. The main source of clicking was the superior cornu, which was generally displaced posteriorly and medially. Two patients had bilateral symptoms, and both sides were operated on.

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### Patient Complaints and Procedures Performed\*

Patient No./ Sex/Age, y	Type of Symptoms (Duration, mo)	Location of Symptoms	Prior Neck Trauma	Procedure	Outcome
1/F/37	Clicking when swallowing, throat pain (5)	R neck	No	R SCE	Complete resolution
2/F/27	Clicking when swallowing, neck pain (9)	Mid neck	Yes	Trim superior edge of the thyroid lamina	Complete resolution
3/M/18	Clicking when swallowing, neck pain (24)	L neck	Yes	L SCE	Complete resolution
4/F/39	Clicking when swallowing, neck pain (12)	Bilateral neck, R>L	No	Bilateral SCE, posterior edge thyroid ala excision (staged)	Complete resolution
5/M/25	Clicking when swallowing, neck pain (12)	Bilateral neck	No	Bilateral SCE	Complete resolution
6/M/29	Throat pain when playing trumpet (12)	R neck	No	R SCE	Complete resolution
7/M/36	Odynophagia (6)	L neck	Yes	L SCE	Complete resolution
8/F/54	Throat pain, aphonia, odynophonia (8)	R neck	Yes	R SCE	Complete resolution
9/F/27	Throat, neck, facial pain (9)	R neck	Yes	R SCE	Complete resolution
10/F/51	Throat pain, clicking when swallowing (4)	R neck	Yes	R SCE	Complete resolution
11/F/15	Throat pain, clicking when swallowing (24)	L neck	Yes	L SCE, L hyoid trim (staged)	Complete resolution

\*R indicates right; L, left; and SCE, superior cornu excision.



**Figure 1.** Larynx anatomic sketch with the regions marked where structures were trimmed to alleviate symptoms of laryngeal click. Patients had symptoms involving the superior cornu of the thyroid cartilage, the superior cornu and lateral thyroid ala, superior margin of the thyroid cartilage, or the greater cornu of hyoid bone.

One patient had clicking of the superior edge of the thyroid lamina against the hyoid bone. One patient with a history of neck trauma from a sledding crash had deflection of both the superior cornu and greater cornu of the hyoid bone.

At the University of Utah, the first 3 patients were operated on under local anesthesia with intravenous sedation so they could swallow and identify the source of the clicking on the operating table and confirm resolution of symptoms during surgery. While in the supine position with the neck extended, the patients had difficulty reproducing the



**Figure 2.** A, Axial plain computed tomographic scan of the larynx in the neutral position reveals an elongated posterior margin of the thyroid cartilage perched on the anterior surface of a cervical vertebral body transverse process (arrowhead). B, Axial computed tomographic scan with the head turned to right shows the thyroid cartilage posterior alar margin has "jumped" off the transverse process (arrow).

clicking, which usually required neck turning and/or neck flexion. As we became more confident of the source of the clicking, general anesthesia was used. In the 4 patients operated on at UCLA, general anesthesia was used with 1 patient and local anesthesia with 3. Findings at surgery included fracture of the superior cornu, posterior displacement of the superior cornu, abutment of the superior cornu

against vertebral fascia, ulceration of vertebral fascia, and elongation of the lateral edge or superior edge of thyroid ala. In 1 case, in addition to superior cornu fracture, the greater cornu of the hyoid bone was also fractured posteriorly and abutted the vertebral transverse process.

The symptoms of clicking in the throat, pain, and/or dysphagia resolved in all patients. In most patients, immediate resolution of symptoms occurred in the recovery room. Several patients experienced a gradual reduction in pain or pressure over 1 to 3 months.

### COMMENT

Throat clicking associated with swallowing, neck turning, or neck pain is uncommon. A few cases have been reported. These reports describe a variety of different sources of the clicking. In 1 report, a 23-year-old man with no history of neck trauma complained of clicking in the throat and pain in the left thyrohyoid region of the neck when swallowing over several months.<sup>1</sup> On physical examination, the left side of the hyoid seemed to ride over the thyroid lamina, and the clicking ceased when the patient swallowed with the neck extended. During surgery, a shortened thyrohyoid space on the left side was found. The superior edge of the left thyroid cartilage was trimmed, resulting in a complete resolution of symptoms. The findings reported in this case are analogous to those of patient 2 in the Table of our series. In most other patients in our series, the superior cornu of the

thyroid cartilage was responsible for producing the symptoms. Other single case reports of throat clicking have been recently published.<sup>2,3</sup> These cases were due to elongation of the greater cornu of the hyoid bone rubbing against the vertebrae. Patient 11 had a similar abnormality (Table).

Clicking larynx symptoms are more easily explained in those with a history of neck trauma, as experienced by several of our patients. In those without such history, the cause of this phenomenon is less clear. The occurrence of clicking larynx symptoms suggests that the thyroid cartilage structure may, in a subtle way, change shape with age.

We found that the most important assessment in these cases was careful physical examination. The location of the clicking could be identified by palpation of the neck when the patient swallowed, and elicitation of a click or laryngeal crepitus could occur on side-to-side palpation of the larynx. This maneuver may reproduce the throat or neck pain symptoms at the site of the laryngeal clicking. In those with a thin neck, anterior displacement of the thyroid ala on the affected side during a swallow may alleviate symptoms. In patients seen at UCLA, a local injection of lidocaine in the region of the superior cornu temporarily improved symptoms and was thought to be diagnostically helpful. Indirect laryngoscopy did not reveal the cause of the clicking in most patients.

Results of imaging studies (CT scans) were initially reported as "normal." After several such studies, a different technique was performed at the University of Utah. If the clicking occurred when turning the head, a spiral CT scan was performed with the patient in the neutral position. It was then repeated with the patient's head turned and during a swallow. This demonstrated the underlying dynamic cause of the sound (**Figure 2**). Interpretation of the CT images requires knowledge of the abnormalities that may cause the clicking sound. The 3 abnormalities that were identified on CT scanning in our series included (1) posterior elongation of the thyroid cartilage ala, (2) superior elongation of the superior cornu of the thyroid cartilage, and (3) an asymmetrically large cervical vertebra transverse process.

## CONCLUSIONS

Clicking in the throat can be treated surgically. Physical examination is fundamental to identify the clicking source so that a treatment procedure can be confidently recommended. Patients can be reassured that these uncommon symptoms are not products of their imagination or something seen only in movies; they are real and can be successfully treated. In our series, laryngeal clicking when swallowing was a bona fide symptom with an identifiable cause. It often had associated throat pain and dysphagia and was frequently, but not necessarily, associated with prior trauma to the neck

or intubation. The most common cause was an elongated or posteriorly oriented superior cornu of the thyroid cartilage. Based on our experience, we conclude the following: (1) Physical examination is needed, with careful palpation of the neck during swallowing and reproduction of symptoms to localize the source of the click. Attention should be directed toward the superior cornu of the thyroid cartilage when symptoms are to the side of the neck and toward overlapping structures in the thyrohyoid space when symptoms are in the anterior of the neck. (2) Laryngoplasty is an effective treatment under local or general anesthesia to trim the offending region(s) of the thyroid cartilage and/or hyoid bone responsible for the clicking.

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