Chapter 8: Disorders of the Oropharynx

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The oropharynx is a multistructural organ related to and interdependent on many adjacent structures. Most important clinically are its contiguity with the upper respiratory and digestive systems.

Structurally, the oropharynx is a musculomembranous tube, extending from the soft palate to the level of the epiglottis. It is derived from foregut endoderm, which adjoins the oral cavity ectoderm at the area of the circumvallate papillae of the tongue and the tonsillar pillars.

A concentration of lymphoid tissue is present at the entrance to the respiratory and digestive tracts called Waldeyer's ring. In the oropharynx this takes the form of the pharyngeal tonsils, the lingual tonsils, and scattered lymphoid follicles of the pharyngeal mucosa. This lymphoid tissue functions as a filtering mechanism to prevent deeper spread of infection which has penetrated the mucosal barrier of the upper airway. The physiologic reactions of Waldeyer's ring - inflammation, edema, hyperplasia - play a major role in the clinical manifestations of pharyngeal diseases.

Other important structures of the oropharynx include the posterior third of the tongue, the tonsillar pillars, and the adjoining deep fascial spaces of the neck.

The main functions of the oropharynx include respiration, deglutition, voice resonance, and speech articulation. Protective respiratory reflexes, including coughing and gagging, are mediated by the pharyngeal plexus of cranial nerves IX and X.

Swallowing is a complex act which requires both conscious and reflex motor activity. The peristaltic wave of deglutition begins in the oropharynx. The great majority of diseases of the oropharynx present with pain which may be acute or chronic and may be associated with fever, airway obstruction, or difficulty in swallowing. Sore throat may be the result of local disease or the earliest manifestation of systemic illness. Cancer and granulomatous and ulcerative diseases all occur in the pharynx.

Acute Sore Throat

Subjective Complaints

Acute sore throat is among the most common complaints of people seeking medical care. Unlike most common disease complexes, the history is often not clinically helpful in diseases of the pharynx because of the similarity of symptoms, regardless of the underlying pathology.

The terms pharyngitis and tonsillitis are often used interchangeably. There is little difference between the presentation of the two; however, the former is a more frequently occurring and inclusive term denoting inflammation of any of the pharyngeal structures.
Acute sore throat is most commonly associated with upper respiratory tract infections. In systemic viral infections, sore throat is often associated with headache, myalgia, rhinorrhea, and cough.

A history of sore throat, fever, and chills following an upper respiratory tract infection is typical of secondary bacterial invasion of the oropharynx. The primary viral inflammation destroys ciliary function, increases mucosal exfoliation, and greatly predisposes to suppurative pharyngitis.

A historical search for underlying illness is important. This should include a review of the patient's general health, smoking and drinking habits, similar prior episodes, the state of dentition, allergic history, and any known systemic diseases such as diabetes mellitus which might predispose to infectious complications.

Pharyngitis often occurs suddenly with fever and chills. Pain is usually generalized in the throat and is worse with swallowing. Accumulation of viscous secretions produces a tendency toward coughing and emesis. Fetid breath is common and the tongue feels thick and coated.

**Objective Findings**

Physical examination is crucial in diagnosing the cause of sore throat. Most commonly in pharyngitis the pharynx appears red and edematous. White exudates may be present anywhere in the oropharynx. It is usually impossible to differentiate viral from bacterial pharyngitis on appearance alone.

White exudates may occur in any inflammatory disease of the pharynx. In addition to viral and bacterial pharyngitis, these may be symptoms of secondary syphilis or oral moniliasis (thrush). The differential diagnosis is described under Assessment.

Pharyngeal ulceration may be the result of local or systemic disease. The differential diagnosis includes blood dyscrasias, primary tumors, mucosal manifestations of primary dermatologic disorders, and simple localized inflammatory disease. Fever of 38.2°C or greater is an important sign of bacterial pharyngitis as is leukocytosis of 12,000 WBC per mm³ or greater. Throat culture, of course, is helpful in establishing bacterial etiology of pharyngitis, but is not useful in the first 24 hours of illness.

The presence of pharyngeal exudate and systemic toxicity requires that the diagnosis of diphtheria and infectious mononucleosis be considered. In such cases, to a routine throat culture should be added culture with Loeffler's medium and tellurite agar and the Monospot test to objectively aid in diagnosis.

Gonococcal pharyngitis is being seen with increasing frequency. When suspected culture should be obtained with chocolate and Thayer-Martin medium. In cases of sepsis, rectal, urethral, and blood cultures are also indicated.
Viruses responsible for pharyngitis are the same ones which cause laryngitis, croup, bronchitis, and the common cold. The site and degree of upper respiratory tract involvement are used in the classification of viral pharyngitis, since viral culture is not routinely available.

Viral pharyngitis associated with the common cold almost always occurs without fever or exudate. Conversely, exudative viral pharyngitis, which is most common in military populations, is a febrile illness. Pharyngitis due to adenovirus is often associated with conjunctivitis. When pharyngitis is associated with croup, myxovirus and parainfluenza virus are most often implicated.

Unlike viral pharyngitis, bacterial pharyngitis presents with a rapid onset of fever, malaise, headache, and abdominal pain. The presence of an exudate on the tonsils or tonsillar fossae is most common in bacterial pharyngitis but is not diagnostic of it. As mentioned, a fever of over 38.2°C and leukocytosis of 12,000 WBC per mm³ are the most helpful objective findings in the first 24 hours. Unfortunately, the classic presentation develops in a minority of patients. It has been noted, for instance, that mild streptococcal pharyngitis commonly presents without exudate and that adenovirus pharyngitis may present with exudative pharyngitis, high fever, and leukocytosis.

The most important bacterial agent of pharyngitis is group A beta-hemolytic Streptococcus. Contrary to popular belief, many other bacteria cause significant febrile pharyngitis and subsequent infectious complications. It is an unfortunate error to ignore these, as is done when throat cultures growing bacteria other than streptococci are discarded.

Antibiotic treatment of routine bacterial pharyngitis is usually recommended, although 75% of older children and adults are afebrile within 3 days of the onset of streptococcal pharyngitis without treatment. Untreated, other signs persist for another 2-3 days. The clinical illness is shortened by 24-48 hours with antibiotic treatment. The most important consideration is that if antibiotics are not used, streptococci are shed for up to 4 weeks in the majority of patients.

The presentation of streptococcal pharyngitis may vary in small children and infants. In this group streptococcal pharyngitis may begin insidiously with viral-like symptoms including rhinorrhea and low fever. Suppurative otitis media and lymphadenitis occur frequently.

Scarlet fever is indistinguishable from other streptococcal pharyngitis with the exception of the secondary rash. This rash usually occurs on the 2nd day of pharyngitis caused by scarlatinal strains of Streptococcus and is characterized by a diffuse, deep red erythema. The rash may occur anywhere, but most commonly inner arms and thighs and the trunk are involved. The face is usually flushed and red and circumoral pallor is common. The rash is caused by an erythrogenic toxin produced by the scarlatinal Streptococcus.

The complications of streptococcal pharyngitis are suppurative, as in peritonsillar or pharyngeal abscess (see Chapter 12), and nonsuppurative. The most important nonsuppurative complications are acute rheumatic fever and acute glomerulonephritis. Recent investigations
suggest that these complications are peculiar to the lower socioeconomic class and may reflect conditions such as poor nutrition and crowding.

Other causes of exudative pharyngitis are diphtheria and infectious mononucleosis. Corynebacterium diphtheriae most commonly localizes in the pharynx and is responsible for both local and systemic illness and in nonimmunized people. The incubation period of diphtheria varies from 1 to 7 days. Typically, the onset is sudden with low fever, malaise, and sore throat. A thick exudate usually involves the tonsillar fossae and may spread from one side of the pharynx to the other. Extension to the larynx and trachea may be associated with respiratory obstruction. The exudates varies in color from dirty white to dark shades of gray, and bleeds when peeled off.

The diagnosis of diphtherial pharyngitis must precede laboratory confirmation for treatment to be successful. The presence of a marked exudate and signs of systemic toxicity indicate the need to obtain culture for diphtheria (Loeffler's medium and tellurite agar), direct smear for gram stain, and institution of therapy. Identification from direct smear is extremely difficult and absence of typical club-shaped bacilli arranged in palisades does not rule out the diagnosis.

The major systemic complications of diphtheria involve the cardiovascular and nervous systems. Myocarditis has been shown electrocardiographically in over 25% of patients with diphtheria, but is clinically less common. When myocarditis is present, the pulse is thready and rapid, heart failure with dyspnea ensues and is followed by cardiac enlargement and an S4 gallop. EKG may show T-wave flattening or inversion, bundle branch block, premature contractions, or atrial fibrillation. Myocarditis carries a grave prognosis.

Cranial or peripheral nerve paralysis may occur in diphtheria. Paralysis of the soft palate is the most common finding and is often manifest by nasal regurgitation during swallowing. Peripheral neuropathy usually involves the lower extremities with loss of tendon reflexes and weakness of dorsiflexion of the ankles.

Infectious mononucleosis is characterized by fever, pharyngitis, lymphadenopathy, lymphocytosis, and splenomegaly. The Epstein-Barr virus is thought to be the etiologic agent. Males are involved slightly more often than females, usually between 15 and 30 years of age. Epidemics have been reported and hospital personnel and medical students seem to be at high risk. Pathologically, lymph node involvement is characterized by proliferation of both lymphocytic and reticuloendothelial elements. Abnormal lymphocytes (Downey cells) are seen in peripheral blood smears. The spleen is tense and swollen. The incubation period is approximately 1 month. Onset is nonspecific with malaise, low fever, and sore throat. Anorexia and malaise may be particularly prominent. Petechiae of the palate are common during the first 2 weeks of illness.

Diagnosis is confirmed by the appearance of greater than 50% lymphocytes in peripheral smear with many atypical forms and by the heterophil or Monospot test. Liver function tests should be performed to rule out hepatic involvement. Complications of infectious mononucleosis include hepatic failure, splenic rupture, and myocarditis. The appearance of a diffuse erythematous rash following the administration of ampicillin is presumptive evidence of infectious mononucleosis.
Sore throat may also be caused by Vincent's angina, a localized infection of the tonsil or tonsillar fossa. It is usually due to a spirochete (*Fusobacterium necrophorum*) in combination with one of a variety of oral anaerobes. The lesion is quite painful but not associated with systemic signs. The typical appearance is that of a small ulceration or group of ulcerations covered with white exudate.

Systemic involvement with leukemia, uncontrolled diabetes, or agranulocytosis should be ruled out. Herpangina is an acute febrile illness of childhood caused by group A Coxsackie virus. Small vesicles occur on the tonsillar pillars and soft palate. This occurs most often during the summer and resolves spontaneously in a week or less.

**Plan**

Therapy should be specific for the individual cause of pharyngitis. If cultures are not obtained, all patients with severe pharyngitis should be considered to have streptococcal infection. It is estimated that one-half of all cases of severe pharyngitis are caused by streptococci.

Routine culturing of family members and close contacts of patients with proven streptococcal pharyngitis has been standard practice. There is, however, recent information indicating that practice to be cost-effective only in lower socioeconomic situations where crowding prevails.

Erythromycin is the drug of second choice. Some studies have shown better penetration into tonsil tissue with erythromycin than penicillin. Usual dosages are 10-20 mg per kg per day for 10 days.

When diphtheria is strongly suspected on clinical grounds, antitoxin should be administered immediately, prior to laboratory confirmation. Recommended dosage varies from 20,000 to 50,000 units intramuscularly. In severe cases, 50,000 units may be administered intravenously and 50,000 intramuscularly. The antitoxin is made of horse serum, and history of sensitivity as well as conjunctival testing with dilute antitoxin (1:10) should be performed prior to administration. Penicillin G and erythromycin are both very active against the diphtheria bacillus and are used in moderately high dosage for 2 weeks.

When marked toxicity or laryngeal involvement is present in diphtheria, high dose steroid therapy has been used with success. Prednisone, 5 mg per kg per day, has been recommended. Severe laryngeal obstruction may require emergency tracheotomy. Bronchoscopy may be lifesaving when the exudate obstructs the lower trachea.

There is no specific therapy for infectious mononucleosis. Bedrest is required for icteric patients and those with splenic enlargement. Secondary bacterial infections should be treated with the appropriate antibiotic. Ampicillin is associated with a high incidence of dermatitis in mononucleosis patients and should be avoided.

Treatment of Vincent's angina includes topical irrigation with warm hydrogen peroxide/saline mixture and with systemic penicillin. Response is usually dramatic within the first 48 hours.
Chronic Sore Throat

Subjective Complaints

The symptom of chronic sore throat often proves difficult to diagnose and treat effectively. This should not dissuade the physician from an aggressive search for treatable causes including infection, tumor, allergy, and irritants. Throat pain may originate in the oropharynx, or be referred from the cervical esophagus, larynx, hypopharynx, vallecula, nasopharynx, or deep neck structures. In the absence of physical findings, chronic sore throat should not be dismissed as chronic nonspecific pharyngitis and the search for an etiology subsequently abandoned. Time may reveal a previously occult neoplasm or site of inflammation.

The patient complaining of chronic sore throat often relates only nonspecific symptoms of mild pain with swallowing. Exacerbations may be caused by irritants such as cold, dry air, smoke, alcohol and acid foods. A careful history, however, may disclose a specific etiology. The patient may, for example, correlate his symptoms with bouts of purulent nasal discharge, suggesting flareups of chronic sinusitis or rhinitis. Correlation with sneezing or watery nasal discharge suggests an upper respiratory irritant or inhalant allergy. The pharynx may be affected by reflux of gastric secretions as well as nasal and sinus secretions. Symptoms of acid reflux from the stomach raise the possibility of throat pain secondary to laryngeal, esophageal, or hypopharyngeal irritation by gastric contents.

Mechanical irritation from a chronic cough may likewise result in chronic laryngitis and/or pharyngitis. Throat pain may result from desiccation of the mucous membranes of the upper airways. Desiccation may be due to mouth breathing, changes in the moisture of the inspired air (as with oxygen therapy or geographic change), loss of saliva (from radiation or diseases of the salivary glands), or structural changes of the nasal septum or turbinates resulting in increased nasal turbulence and subsequent decreased ability of the nose to warm and moisten inspired air.

Throat pain exacerbated by specific foods may suggest a food allergy, particularly if accompanied by itching of the throat or by gastrointestinal symptoms such as nausea, bloating, or diarrhea.

Localization of the pain may be useful in directing the physical examination to a particular structure such as the tonsils, the nasopharynx, the base of the tongue, or any other area where a specific inflammatory process may occur.

Chronic tonsillitis may present as constant or recurrent episodes of sore throat, often accompanied by low grade fever and malaise.

Throat pain referred from outside the oropharynx may be accompanied by localizing symptoms such as hoarseness, pain when speaking, pulmonary aspiration, pain with head or neck movement, or nasal obstruction. Symptoms of throat pain and weight loss in a heavy smoker and drinker should initiate a meticulous search for cancer.
**Objective Findings**

Examination of the oropharynx usually discloses the site of inflammation if not the cause. In cases of chronic tonsillitis, the tonsils may be either large or small, depending on the degree of edema, fibrosis, or atrophy they have undergone. They are generally cryptic and may be injected and tender to palpation. Unilateral tonsillar enlargement in an adult should be evaluated for masses suggestive of malignancy.

The lymphoid nodules in the posterior oropharynx may be hypertrophied and erythematous, suggestive of chronic inflammation. Examination of the nose and nasopharynx may give further clues to the source of such inflammation. Tenderness of the adenoids is usually accompanied by hyperplasia and exudate and is suggestive of chronic adenoiditis. Thornwaldt's bursa, a midline embryologic remnant, may be subject to abscess and presents as sore throat with a nasopharyngeal mass. It is usually tender to palpation and visible to mirror examination. Retention cysts of the nasopharynx may become infected and present much the same way as Thornwaldt's abscess.

Palpation of the oropharynx may reveal a tender, elongated, styloid process medial to the tonsil. This finding constitutes a controversial source of chronic throat pain. The tongue and lingual tonsil may likewise be palpated to localize the pain. Indirect laryngoscopy is necessary to rule out cysts, neoplasms, inflammation, and structural deformities of the nasopharynx, vallecula, hypopharynx, and larynx. Palpation of the neck may disclose malignant or inflammatory adenopathy, thyroid disease, or tenderness of any of the cervical musculoskeletal structures.

If the physical examination is normal and the history nondiagnostic, a sedimentation rate and complete blood counts (CBC) serve as a rough screen for chronic inflammatory disorders. A soft tissue lateral x-ray of the neck may disclose soft tissue masses in the upper airways (such as Thornwaldt's abscess), cervical spine disease, an elongated styloid process or a radiopaque foreign body. A throat culture is often performed, but is usually not of diagnostic value in chronic sore throat (unless febrile episodes raise the possibility of recurrent streptococcal infections).

**Assessment**

History and physical examination may disclose a discrete etiology of chronic sore throat such as a tumor or infection. More often, however, history is nonspecific and physical examination reveals only erythematous, hypertrophied lymphoid nodules. This condition may be termed chronic hypertrophic or granular pharyngitis. Possible etiologies include undiscovered allergies, mechanical and chemical irritants, chronic infections of the posterior pharyngeal lymphoid nodules analogous to chronic tonsillitis, irritation from infected nasal and nasopharyngeal secretions, desiccation of the mucous membranes, or any combination of these factors. L-forms and Mycoplasma species have been cultured from homogenates of chronically infected tonsils where routine throat swabs have been negative. Unfortunately, though, response to specific antibiotic therapy has been disappointing.
Granulomatous diseases of the pharynx such as tuberculosis, tertiary syphilis, fungal infections, and brucellosis are rare and generally accompanied by widespread manifestations of the disease elsewhere.

**Plan**

Therapy is aimed at correction of specific etiologies where they are present and symptomatic relief where they are not. Chronic tonsillitis may be treated with tonsillectomy, if antibiotics and warm saline gargles fail to control the recurrences (this is a very rare indication for tonsillectomy). Adenoidectomy may likewise be used to treat chronic adenoiditis. Thornwaldt's abscess and nasopharyngeal cyst are amenable to marsupialization.

Allergic management may prove more elusive, particularly in chronic inhalant allergy where mucous membranes have undergone the chronic changes associated with repeated superinfections. Treatment consists of antihistamines, steroid nasal sprays, and avoidance of specific offending allergies, where possible. Hyposensitization injections may prove useful in inhalant allergies where conservative management has been unsuccessful. Local irrigation with normal saline helps clear crusts in purulent and atrophic pharyngitis. Granular pharyngitis, when not associated with a specific reversible etiology, may be treated by chemical or electrical cauterization. This treatment affords only temporary relief, however, and satisfactory long-term palliation may not be achieved despite aggressive therapy.

**Fever and Chills Following an Upper Respiratory Infection (Pharyngeal Abscess)**

**Subjective Complaints**

The fascial investitures of the muscles, bones, and organs of the neck divide it into a number of closed compartments. Suppuration in a compartment may result from direct invasion by pus or by liquefaction of a lymph node within the compartment draining an infected area elsewhere. The peritonsillar, retropharyngeal, parapharyngeal (also called pharyngomaxillary) and anterior visceral are among the spaces most commonly invaded during an upper respiratory infection.

Occasionally the familiar symptoms of an upper respiratory tract infection lead to spiking fever, chills, and systemic toxicity. Increasing local pain further heralds the onset of secondary bacterial infection and spread to a nondraining fascial space. The most common pharyngeal abscess is the peritonsillar abscess.

In the case of peritonsillar abscess, the symptoms of routine streptococcal or viral pharyngitis develop into severe odynophagia. The patient is not only unable to take liquids, he is often unable to swallow his own saliva, resulting in early dehydration.

The voice acquires a muffled quality, the so-called "hot potato voice." Trismus is generally present to some degree and may be severe. Fever, malaise, and systemic toxicity are the rule. Some relief is obtained if the abscess has drained spontaneously into the oropharynx, but more commonly the patient seeks medical attention before this occurs.
These classical symptoms are often obscured by administration of antibiotics. Presentation may be more gradual and may follow by a few days inadequate treatment of pharyngitis.

Retropharyngeal abscess, seen most often in children, presents with pain on swallowing. Respiratory embarrassment may occur as the process extends inferiorly toward the larynx. Trismus is classically absent, but may occur if the abscess has resulted by extension from the parapharyngeal space as often occurs in adults.

Asymptomatic retropharyngeal abscess is seen in the elderly and commonly results from tuberculosis of the spine. Lingual tonsil abscess and intratonsillar abscess present with extreme dysphagia unless the abscess has drained spontaneously.

**Objective Findings**

The objective findings are the key to diagnosing abscesses of the upper airway. Localization of swelling and pain guides the diagnosis and subsequent drainage. Peritonsillar abscess usually presents as a swelling of the anterior tonsillar pillar at its superior pole. The involved tonsil itself may or may not be enlarged relative to the opposite tonsil, but is displaced medially and may impinge on the edematous uvula. A common mistake is to confuse enlarged erythematous, exudative tonsils with peritonsillar abscess. The latter is not a severe case of tonsillitis, but an invasion of the space between the tonsillar capsule and the superior pharyngeal constrictor by pathogenic bacteria leading to suppuration in this closed space. The unilateral location of the swelling readily distinguishes peritonsillar abscess. Rarely, peritonsillar abscess may be bilateral. A masticator space abscess, usually of dental origin, may point lingually and be difficult to distinguish from a peritonsillar abscess. The history of preceding upper respiratory infection and lack of dental symptoms distinguish the peritonsillar abscess.

Retropharyngeal abscess is generally easily visualized as a swelling in the posterior oropharynx. Lateral soft tissue roentgenograms of the neck may disclose expansion of the posterior pharynx as well as vertebral exostosis or the presence of a foreign body. Laryngeal examination should be performed to assess inferior extension and potential for airway obstruction, especially when stridor is present.

Other upper airway abscesses are localized by careful physical examination. Parapharyngeal abscess may cause swelling of the peritonsillar, parotid, and submaxillary areas depending on avenue of spread. Rigidity of the neck and severe trismus help differentiate parapharyngeal from peritonsillar abscess. White blood cell count in the case of abscess is usually elevated beyond that seen with simple pharyngitis. Counts of 15,000-20,000 with a shift to the left are common.

**Assessment**

The etiology of pharyngeal and deep neck abscesses is direct or lymphatic invasion of fascial compartments by pathogenic bacteria. While most abscesses had previously been considered to be group A beta-hemolytic streptococci, advances in anaerobic culturing techniques have revealed anaerobes to be present as sole pathogens or mixed with aerobes in
the majority of cases. *Bacteroides melaninogenicus* and anaerobic streptococci are the most commonly cultured anaerobes.

While peritonsillar abscess is the most common fascial space infection, suppuration may also occur in a myriad of fascial compartments of the head and neck. Retropharyngeal, parapharyngeal, and anterior visceral space abscesses may all result from foreign body penetration. Although fascia is a strong barrier to the spread of infection, it may break down under pressure of confined pus. Moreover, the compartments often interconnect, allowing great variation in the route of spread. An infection pointing in the pharynx may have originated from an infected tooth, a sinus infection, or a suppurating mandibular fractures.

The diagnosis of retropharyngeal abscess is today entertained by primary care physicians much more frequently than the entity is actually encountered. The possibilities of respiratory obstruction and/or direct mediastinal extension justify this caution. Retropharyngeal abscess resulting from upper respiratory infections is largely a pediatric disease, occurring most commonly in the 1st year of life. It generally results from suppuration of the nodes in the retropharyngeal space which drain areas of infected lymphoid tissue in the naso- and oropharynx. The retropharyngeal nodes under progressive atrophy from the age of 2 years until they are virtually absent by age 12. The lymphoid tissue they drain also shrinks progressively in late childhood and becomes less susceptible to infection, making retropharyngeal spread still less likely.

**Plan**

The treatment of abscess is incision and drainage. While abscesses occasionally respond to systemic antibiotics, the slower response and great possibility of persistence in spite of medical treatment make incision and drainage the treatment of choice.

Peritonsillar abscess is generally managed by aspiration of the peritonsillar space with an 18-gauge needle passed tangentially to the lateral margin of the superior pole of the tonsil where the bulging is greatest. Successful aspiration of pus confirms the diagnosis, obtains material for culture, relieves the pressure pain of the pus, and establishes a tract for further drainage. Unsuccessful needle aspiration may occur because of loculation of the pus inferiorly, incomplete liquefaction of the inflamed area (peritonsillar cellulitis) or incorrect diagnosis.

Alternately, the anterior tonsillar pillar may be opened with a no. 11 surgical blade in the same area, providing better drainage but more trauma and bleeding, and the possibility of pulmonary aspiration. Some caution must be exercised with this drainage, as the internal carotid artery normally lies just posterior and lateral to the tonsil. An aberrant carotid may be directly behind the superior constrictor which forms the posterior wall of the abscess cavity. The posterior oropharynx is often seen pulsating in the latter case, and palpation of the area further confirms the proximity of the internal carotid. Hot saline gargles speed the resolution of the process. Tonsillectomy has been carried out either acutely or after the inflammation has resolved to prevent the otherwise common recurrence.

Tonsillectomy in the acute stage of peritonsillar abscess is practised by many physicians. It reduces medical costs and patient discomfort.
Other pharyngeal abscesses are drained under general anesthesia with the patient intubated to avoid aspiration of pus. Systemic antibiotics are recommended until the process is resolved. Penicillin is the drug of choice, unless Staphylococcus aureus is suspected or encountered on culture. In these cases a penicillinase-resistant penicillin is used with the awareness that it is not as effective as penicillin against anaerobes and Streptococcus species. For this reason, penicillin may be used in combination with a semisynthetic penicillin for optimal coverage. Cephalosporins provide coverage of staphylococci and anaerobes but achieve lower tissue concentrations in some areas. Clindamycin offers good coverage of S. aureus and anaerobes, but potential side effects, such as colitis, militate against its more frequent usage. Tetracycline and erythromycin are also less effective second-choice drugs. With the use of high dose systemic antibiotics, sequelae of deep neck abscesses following upper respiratory infection (eg, metastatic abscesses, thrombosis of the internal jugular, and mediastinitis) have become uncommon.