

Acute pharyngitis

Upper respiratory tract infections account for a substantial portion of visits to pediatricians. .Approximately 30% of such illnesses feature a sore throat as the primary symptom

Etiology

The most important agents causing pharyngitis are viruses, (adenoviruses, coronaviruses, enteroviruses, rhinoviruses, respiratory syncytial virus [RSV], Epstein-Barr virus [EBV], herpes simplex virus [HSV], metapneumovirus) and group A β -hemolytic streptococcus (GABHS), .Other organisms sometimes associated with pharyngitis

Epidemiology

Viral upper respiratory tract infections are spread by close contact and occur most commonly in fall, winter, and spring. Streptococcal pharyngitis is relatively uncommon before 2-3 yr of age, has a peak incidence in the early school years, and declines in late adolescence and adulthood. Illness occurs most often in winter and spring and spreads among siblings and classmates. Pharyngitis from group C streptococcus and .Arcanobacterium haemolyticum occurs most commonly among adolescents and adults

Pathogenesis

Colonization of the pharynx by GABHS can result in either asymptomatic carriage or acute infection. The M protein is the major virulence factor of GABHS and facilitates resistance to phagocytosis by polymorphonuclear neutrophils. Type-specific immunity develops following most infections and provides protective immunity to subsequent infection with that .particular M serotype

Clinical Manifestations

The onset of streptococcal pharyngitis is often rapid, with prominent sore throat and fever in the absence of cough. Headache and gastrointestinal symptoms (abdominal pain, vomiting) are common. The pharynx is red, and the tonsils are enlarged and classically covered with a yellow, blood-tinged exudate. There may be petechiae or "doughnut" lesions on the soft palate and posterior pharynx, and the uvula may be red, stippled, and swollen. The anterior cervical lymph nodes are enlarged and tender. The incubation period is 2-5 days. Some patients demonstrate the additional stigmata of scarlet fever: circumoral pallor, strawberry tongue, and a red, finely papular rash that feels like sandpaper and resembles sunburn with goose pimples

The onset of viral pharyngitis may be more gradual, and symptoms more often include rhinorrhea, cough, and diarrhea. A viral etiology is suggested by the presence of .conjunctivitis, coryza, hoarseness, and cough

Diagnosis

.The clinical presentations of streptococcal and viral pharyngitis show considerable overlap

1.Throat culture remains an imperfect gold standard for diagnosing streptococcal pharyngitis

. 2. Detect group A streptococcal antigen.

3. Viral polymerase chain reaction (PCR)

. 4. Complete blood cells (CBC) count showing many atypical lymphocytes

.. 5. Spot test (positive slide agglutination) help diagnosis of EBV infectious mononucleosis

Treatment

Most untreated episodes of streptococcal pharyngitis resolve uneventfully in a few days, but early antibiotic therapy hastens clinical recovery by 12-24 hr. The primary benefit of treatment is the prevention of acute rheumatic fever, which is almost completely successful if antibiotic treatment is instituted within 9 days of illness. Antibiotic therapy should be started immediately without culture for children with symptomatic pharyngitis and a positive rapid streptococcal antigen test, a clinical diagnosis of scarlet fever, a household contact with documented streptococcal pharyngitis, a past history of acute rheumatic fever, .or a recent history of acute rheumatic fever in a family member

A variety of antimicrobial agents are effective. GABHS remains universally susceptible to penicillin,(penicillin v, benzathine-procaine penicillin & Oral amoxicillin).(Erythromycin, .(Azithromycin, cephalexin or cefadroxil, Clarithromycin& Clindamycin

.Specific therapy is unavailable for most viral pharyngitis

Recurrent Pharyngitis

.Recurrent streptococcal pharyngitis can represent relapse with an identical strain .١

.New exposures to different strain .٢

.Pharyngitis of another cause accompanied by streptococcal carriage .٣

Complications and Prognosis

Viral respiratory tract infections can predispose to bacterial middle ear infections. The complications of streptococcal pharyngitis include local suppurative complications, such as parapharyngeal abscess, and later nonsuppurative illnesses, such as acute rheumatic fever .and acute postinfectious glomerulonephritis

Prevention

Multivalent streptococcal vaccines based on M protein peptides are under development.
Antimicrobial prophylaxis with daily oral penicillin prevents recurrent GABHS infections but is recommended only to prevent recurrences of acute rheumatic fever