Bilateral peritonsillar abscesses: A challenging diagnosis

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Abstract
Peritonsillar abscess is the most common complication of acute tonsillitis. Bilateral peritonsillar abscesses are much less common, and they may be more difficult to detect on physical examination because the oropharynx often appears to be symmetrical rather than asymmetrical, as is the case in unilateral abscess. Previous steroid treatment may also complicate the diagnosis by masking the signs and symptoms of abscess. We describe the case of a young woman who presented to the emergency department with relatively mild symptoms despite having large bilateral peritonsillar abscesses. We believe that her symptoms had been masked by previous steroid therapy. We also review the treatment and microbiology of peritonsillar abscess.

Case report
A 24-year-old woman presented to the emergency department of Mercy Hospital of Pittsburgh with a 6-day history of sore throat. She had initially gone to another hospital, where she was diagnosed with strep throat and given a dose of penicillin. Three days later, she returned to the same hospital for treatment of increased pain and dysphagia. When symptoms persisted the next day, she presented to our institution.

At our emergency department, she was treated with narcotics and prescribed oral prednisone at 60 mg/day. After 3 days of steroid therapy she returned, complaining of increased pain, decreased oral intake, and a feeling of airway obstruction while supine. Her pain radiated to both ears. She denied fever and chills. Her history included recurrent episodes of sore throat in the past—approximately twice per year—but those episodes were much less severe.

On presentation, she exhibited no respiratory distress, trismus, or drooling. Her tonsils were enlarged, hyperemic, and symmetrical, and no exudate was seen. Her uvula was in the midline, and her oropharynx was crowded but patent. Tender upper cervical lymphadenopathy was present bilaterally. Findings on the remainder of her physical examination were within normal limits. Laboratory studies revealed a white blood cell count of 12.5/mm³ and a neutrophil level of 72.5%. A test for mononucleosis was negative.

Computed tomography (CT) of the neck detected large, bilateral peritonsillar abscesses (figure). She was treated with intravenous ampicillin/sulbactam and IV dexamethasone and admitted to the hospital.

The patient was subsequently taken to the operating room, where she underwent incision and drainage and quinsy tonsillectomy. Foul-smelling pus was drained from both abscesses and sent for aerobic and anaerobic cultures and determination of sensitivities. The aerobic culture grew few alpha-hemolytic streptococci, occasional beta-hemolytic streptococci (not group A or B), rare Staphylococcus aureus, and rare Candida albicans. The anaerobic culture grew few...
multiple organisms. In a detailed bacteriologic study of
and treatment.
and symptoms of abscess and therefore delay diagnosis
is possible that early steroid treatment will mask the signs
increases patient comfort by decreasing inflammation, it
diagnosis of her abscesses. While treatment with steroids
abscesses had caused some mild upper airway symptoms.
adequate and appropriate therapy for our patient, whose
abscesses had caused some mild upper airway symptoms.
steroid treatment that our patient had received might
abscesses in young adults. Clin Infect Dis
9. Kieff DA, Bhattacharyya N, Siegel NS, Salman SD. Selection of antibi-
other beta-lactamase–positive, anaerobic, gram-negative
rods. No penicillin-resistant organisms were isolated.
and narrowing of the oropharyngeal airway.
Figure. Contrast-enhanced CT of the neck shows the bilateral
peritonsillar abscess, Jousimies-Somer et al found aerobic
organisms in approximately 86% of cases and anaerobic
organisms in approximately 82%. The most common
aerobic and facultative anaerobic organisms isolated were
Streptococcus pyogenes (~45%), Streptococcus milleri
(~26%), Haemophilus influenzae (~10%), and viridans
group streptococci (~10%). Fusobacterium necrophorum
and P melaninogenica were the most common anaerobic
organisms isolated (~38% each). A maximum of 12 and a
mean of 4.4 organisms per specimen were isolated.
In a study of peritonsillar abscess aspirates in the outpa-
tient setting, Cherukuri and Benninger found Streptococ-
cus spp in approximately 74% of aspirates, Haemophilus
spp in approximately 27%, Neisseria spp in 12%, and
Staphylococcus spp in 10%. They concluded that routine
culturing of aspirates is not necessary and does not af-
fect clinical management or outcome in outpatients with
peritonsillar abscess.
In a study of hospitalized patients who had undergone
incision and drainage, Kieff et al reported that IV penicillin
was as effective as broad-spectrum antibiotics despite the
fact that most peritonsillar abscesses are polymicrobial and
may contain penicillin-resistant organisms.
Based on the published evidence, we felt that quinsy
tonsillectomy and antibiotic treatment with penicillin were
adequate and appropriate therapy for our patient, whose
abscesses had caused some mild upper airway symptoms.
The steroid treatment that our patient had received might
havenmaskedthesignsandsymptomsofherabscessesand,
consequently, the clinical examination was not as useful
as CT in making the diagnosis. Moreover, the fact that she
had bilateral abscesses further complicated the clinical
picture because her tonsils appeared to be symmetrical on
physical examination. Therefore, it is important to keep
peritonsillar abscess in mind even if the clinical picture is
not entirely suggestive, especially in the face of previous
steroid therapy.

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