Bilateral peritonsillar abscess revisited

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Abstract

Bilateral peritonsillar abscess is uncommon. When it occurs, patients usually present with sore throat; other clinical signs and symptoms may differ from those usually associated with unilateral peritonsillar abscess. We describe 2 cases of bilateral peritonsillar abscess that were successfully treated with needle aspiration of both sides with a 14-gauge intravenous cannula. Needle aspiration is an accepted form of treatment for unilateral peritonsillar abscess, but to the best of our knowledge, its use as a sole treatment modality (with observation under intravenous antibiotic coverage) for bilateral peritonsillar abscess has not been previously reported in the literature. We also believe that the incidence of acute bilateral peritonsillar abscess may be higher than the rates that have been reported in the literature. Finally, we recommend that the threshold for imaging be low for any patient who is suspected of having acute bilateral peritonsillar abscess to avoid any delay in diagnosis and treatment.

Introduction

The presenting signs and symptoms of bilateral peritonsillar abscess are varied, and therefore a high index of suspicion is important for early diagnosis and treatment. The history and clinical examination, augmented by imaging when necessary, will guide the diagnosis. In our experience, needle aspiration is an adequate form of treatment for bilateral peritonsillar abscess when it is performed carefully and followed by a period of intravenous antibiotic coverage and close observation. In this article, we describe 2 cases of bilateral peritonsillar abscess that were successfully treated in this manner.

Case reports

Patient 1. A 32-year-old man presented to the accident and emergency department of our hospital with a 5-day history of sore throat. He said that his symptoms had worsened over the previous 24 hours. He did not complain of any difficulty breathing, but he had severe odynophagia. He had no history of recurrent sore throat.

On examination, the patient looked unwell and his temperature was 38.5°C. His tonsils were enlarged to the extent that they came into contact with each other at the midline, but there was no trismus. The uvula remained central, and the soft palate was full and bulging symmetrically. Flexible nasopharyngoscopy under local anesthesia revealed a normal postnasal space and bulging of the tonsils into the oropharynx. The airway was not compromised. A diagnosis of bilateral peritonsillar abscess was suspected when fluctuance was elicited on finger palpation. It was confirmed by needle aspiration, which was performed at the point of maximum bulge with a 14-gauge IV cannula and a 10-ml syringe (figure, A). Ten ml of pus was aspirated from the right side and 4 ml from the left side. Following aspiration, the patient experienced a significant improvement. He was kept under close airway observation for 24 hours while IV amoxicillin/clavulanate and metronidazole were administered. Computed tomography (CT) of the neck the following day did not detect any residual pus in the peritonsillar area (figure, B). The patient made a rapid recovery following aspiration. He was discharged 3 days after being admitted and sent home with a 5-day course of oral antibiotics. A follow-up appointment at the clinic was scheduled to discuss future tonsillectomy.

Patient 2. A 28-year-old man presented with a 3-day history of sore throat that had become worse during the preceding 24 hours. He reported severe odynophagia, and he said that the right side of his throat was more painful than the left. He had no history of recurrent sore throat.

On examination, the patient was pyretic, he looked dehydrated, and he had marked trismus. The right tonsil had medialized, and the uvula had shifted to the left. An obvious bulge of the right anterior pillar and soft palate was noted. Although the left tonsil also appeared to be inflamed, no obvious bulge of the peritonsillar area was seen on that side.

Needle aspiration was performed with a 14-gauge IV cannula at the point of maximum bulge on the right, and 6 ml of thick pus was drained. The patient said he felt much
better following aspiration, and he was admitted for IV treatment with fluids, amoxicillin/clavulanate, and metronidazole. The following day, however, he reported that his throat was still painful, and his temperature had spiked to 38.5° C. On examination, the trismus was significantly alleviated and the bulge in the right anterior pillar had resolved, but a slight bulge was noted in the left anterior pillar. The soft palate and the uvula were unaffected. A diagnostic tap on the left side yielded 3 ml of thick pus. Following this second aspiration, the patient made a gradual recovery, and he was discharged on hospital day 4 on a course of oral antibiotics. At follow-up 2 weeks later, his signs and symptoms had completely resolved, and he was scheduled for tonsillectomy.

Discussion
Bilateral peritonsillar abscess is reportedly uncommon, and experience with its diagnosis and management is limited. The reported incidence of bilateral infection ranges from 0 to 24%, with the higher end of the range representing cases in which an unsuspected contralateral abscess was discovered during quinsy tonsillectomy. We believe that the incidence of bilateral peritonsillar abscesses presenting in the acute phase may be higher than what is generally believed. For example, in our patient 2, a high index of suspicion led to our discovery of the abscess on the opposite side. This type of patient presents with a predominantly unilateral abscess and is slow to recover following incision and drainage. We believe that continued intravenous antibiotics in these cases would cure the unrecognized contralateral abscess without it being noticed, and hence the estimate of bilateral disease is underreported.

The hallmarks of peritonsillar abscess are severe sore throat, dysphagia, a “hot potato voice,” and trismus. However, the presenting signs and symptoms of bilateral peritonsillar abscess are variable, as was seen in our 2 patients. This variability makes a clinical diagnosis more difficult and results in delayed treatment. Contrary to what has been suggested in the literature, trismus as a sign of peritonsillar abscess may be minimal or absent.

Both unilateral and bilateral peritonsillar abscesses pose a risk of airway occlusion or spontaneous rupture, so urgent treatment is necessary. Traditionally, peritonsillar abscesses have been treated with incision and drainage using a surgical blade. However, during the past 2 decades, needle aspiration has been shown to be equally effective in treating this condition, and it obviates the unpleasant experience associated with incision and drainage. Needle aspiration is well tolerated, and the failure rate is low. In our experience, the cautious use of a 14-gauge needle rather than a smaller-gauge needle increases the likelihood of obtaining pus from a peritonsillar abscess. We must add the caveat that any form of needle aspiration in the area of the pharynx carries a risk, so aspiration must be performed carefully.

Bilateral peritonsillar abscess, which is a more serious condition than unilateral abscess, has been classically treated with incision and drainage and in some cases with hot tonsillectomy. In view of the proven efficacy of needle aspiration in treating unilateral abscess, one might conclude that it is reasonable to use the same technique for bilateral infection in a controlled environment. Because the risk of complications may be higher with bilateral abscess than with unilateral disease, a period of close airway observation following needle aspiration is vital. If a patient does not improve or if pus re-collects, a repeat aspiration or even incision and drainage can still be carried out. Patients with a bilateral abscess experience significantly more pain;
the use of aspiration avoids further discomfort. In addition, there is a potential risk of aspiration of drained pus following incision because these patients have an impaired swallow secondary to the peritonsillar swelling; this risk may be reduced by needle aspiration.

It is important to include radiologic imaging in the assessment of all patients with suspected bilateral peritonsillar abscess, not only to confirm the diagnosis but also to rule out any parapharyngeal extension. We recommend CT.

In conclusion, we find that needle aspiration has both a diagnostic and therapeutic potential. In combination with appropriate imaging, close monitoring, and antibiotic coverage, it is a safe method of treating bilateral peritonsillar abscess.

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References

Figure. Illustrations depict the in situ placement of standard postnasal packing (A) and a nasal tampon (B).