Abstract

Objective: To determine whether surgical drainage of peritonsillar abscesses provides superior outcomes compared to medical management.

Methods: Twenty-one patients with a clinically diagnosed peritonsillar abscess were randomized to medical or surgical treatment. Medical management consisted of intravenous Ceftriaxone, Clindamycin, Decadron, and fluids. Patients were discharged from the hospital with a course of penicillin and amoxicillin and returned the following day for re-evaluation and a second dose of antibiotics. The surgical treatment group received the same medical care but also underwent needle aspiration. The major outcome measurements were pain (0-10 scale), days until return to work, and time before oral intake. The data can be seen in tables 1, 24, 48, and 72 hours, then on days 7, and 42 days.

Results: Statistical analysis showed no significant advantage for the surgical treatment group, other than less pain in the surgical treatment group at 24 hours (mean pain score of 3.04 versus 1.85, p=0.0486). However, it should be noted that the pre-treatment pain scores showed a significant trend toward less pain in the surgical group, at just short of significance (8.08 versus 5.14, p=0.0603). This showed a significant trend for pain reduction along time, but there was no difference between groups. There was no significant difference in days before able to drink or days before returning to work.

Conclusion: Medical and surgical management of peritonsillar abscesses produced similar results with no apparent advantage to the oral dissection group associated with surgical drainage. Further study with a larger group size is necessary to validate the results.

Material and Methods

Peritonsillar abscesses (PTAs) are one of the most common deep infection of the head and neck. They have an incidence of 30 per 100,000 with about 500,000 new cases annually. The annual cost of treating PTAs has been estimated at over $150 million. In addition to the cost of treatment, other societal monetary costs include 24 hours of work lost, school days lost, and also the pain and discomfort, and extension to deep neck spaces or the mediastinum. Despite the frequency of PTAs, the evidence regarding their management is sparse. There is still considerable variation and debate in their management. Treatment methods include medical therapy, aspiration, incision and drainage, and even quinsy, who may require tonsillectomy. Outcomes between these different techniques are only slightly reported in the literature. Despite the variation, it appears that aspiration versus surgical treatment is also variable.

Recent studies have shown the beneficial role of steroid therapy and have even questioned the need for needle aspiration in the acute phase of PTAs. It has been shown that pain scores following needle aspiration and steroid therapy can be effectively treated with medical therapy alone.

A randomized, controlled study showed that after needle aspiration and inpatient admission for intravenous antibiotics, those receiving steroids instead of placebo showed significant improvement in a number of clinical outcome measures including improvement in pain, resolution of fever, oral intake, and length of hospital stay. A group working with the Indian Health Service in Arizona designed a trial of purely medical therapy (no aspiration or incision) using high dose steroids, antibiotics, hydration, and anti-infective therapies. They found this regimen successful in 90% of patients of the 39 in the study group. Patients returned to work within 24 hours and were discharged on oral Clindamycin and pain medication. They found this approach effective in almost all patients, just short of significance (8.08 versus 5.14, p=0.0603).

Our study evaluated whether peritonsillar abscesses with improved clinical outcomes over medical treatment alone.

Methods: Twenty-one patients with a clinically diagnosed peritonsillar abscess were randomized to medical (12) or surgical (9) treatment groups. At the initial evaluation, all study patients were treated with Ceftriaxone 600 mg, Clindamycin 1.5 mg/kg, Dexamethasone 10 mg IV, intravenous fluids, and pain control. The surgical group underwent sterile needle aspiration in addition to the above. All patients were discharged home on oral Clindamycin 300 mg and pain medication. All patients were seen the following day for a second dose of Clindamycin and Ceftriaxone. Ceftriaxone was also given for 48 hours following needle aspiration and incision and drainage. With this background, we designed a study to evaluate whether surgical drainage of PTAs provides improved clinical outcomes over medical treatment alone.

Results: Statistical analysis showed no significant advantage for the surgical treatment group, other than less pain in the surgical treatment group at 24 hours (mean pain score of 3.04 versus 1.85, p=0.0486). However, it should be noted that the pre-treatment pain scores showed a significant trend toward less pain in the surgical group, at just short of significance (8.08 versus 5.14, p=0.0603). This showed a significant trend for pain reduction along time, but there was no difference between groups. There was no significant difference in days before able to drink or days before returning to work.

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Data from a recent study showed that there may be no difference in outcomes between medical and surgical management of PTAs. Both groups showed similar resolution of pain as well as ability to resume oral intake and return to work. The study limits are that performed with the small sample size that may not be strong enough to validate the results. Our study showed that after the statistical evaluation, it should be noted that all medically managed patients in the study fully recovered without the need for surgical needle aspiration or incision and drainage. While relatively straightforward procedures, these procedures are often associated with increased risk and discomfort. Patients were discharged home on oral Clindamycin 300 mg and pain medication. All patients were seen the following day for a second dose of Ceftriaxone. Ceftriaxone was also given for 48 hours following needle aspiration and incision and drainage. With this background, we designed a study to evaluate whether surgical drainage of PTAs provides improved clinical outcomes over medical treatment alone.

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References