



Management of Peritonsillar Abscess: comparative prospective study of Needle aspiration and Incision & Drainage in central Indian Population

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ABSTRACT

Background: Peritonsillar abscess also called as Quinsy is commonest infection in head and neck region. It is collection of pus within the peritonsillar space as a result of acute tonsillitis and subsequent Peritonsillar cellulites. The treatment is controversial- medical or surgical. Surgical modalities available are- incision & drainage, needle aspiration, quinsy tonsillectomy etc.

Materials and Methods: 2 year prospective study was carried out in ENT department of our medical college hospital covering 140 patients. All patients were divided in two groups according to surgical procedures carried out.

Group 1: patients who have undergone Incision and Drainage

Group 2: patients on whom Needle aspiration was carried out

Results: Out of 78 patients in group 1, PTA recurred once in 4 patients and twice in two patients. Conversely 7 (11.29%) patients showed recurrence in group 2. Mean hospital stay 3.6 and 2.9 days respectively in both cases. History of recurrent tonsillitis was present in 62.82% patients in group 1 and 66.12% in group 2.

Conclusion: Incision and drainage is better treatment modality as compared to needle aspiration. But Needle aspiration can be utilized as first step of management of peritonsillar abscess as it is simple, cheap, effective and less traumatic to the patients.

Keywords: Aspiration, Drainage, Otorhinolaryngology, recurrent.

1. INTRODUCTION

Peritonsillar infections are the most common infections of deep tissues of the head and neck region both in adults and children, with an incidence of approximately 30 cases per 100 000 population per year¹. Peritonsillar abscess (Quinsy) is defined as localized collection of pus within the peritonsillar space as a results of acute tonsillitis and subsequent Peritonsillar cellulites. This is one of the commonest presentations in ENT department. The incidence of peritonsillar abscess (PTA) ranges from 13 – 30 per 100000 persons per year². The condition usually presents unilaterally and affects any age group from 10 to 60 years but is most common in the age group 20 to 40 years³. Male to female ratio is 2:1². Clinical presentation is usually bizarre.

If this condition is ignored; there is a huge risk of developing serious complications due to extension of the

disease as major vessels thrombosis, mediastinitis, pericarditis, pneumonia and upper airway obstruction². The treatment is controversial- medical or surgical. Surgical modalities available are- incision & drainage, needle aspiration, quinsy tonsillectomy etc.

The aim of this study was to compare and evaluate the outcomes of two important surgical procedures for management of Quinsy- Incision & Drainage and Needle aspiration.

2. MATERIAL AND METHODS

This prospective and comparative study was carried out in Otorhinolaryngology department of our medical college hospital during 2 year period (December 2010 to January 2013). All suspected patients of peritonsillar abscess above 15 years of age irrespective of sex were included in the study. A written informed consent was obtained from

all such patients regarding participation in study, details of procedures, benefits & risks involved, etc. Detail clinical history and thorough examination and investigations were carried out.

Peritonsillar abscess was diagnosed as follows: swollen upper pole of tonsil showing congested anterior pillar, swollen and deviated uvula towards opposite side, trismus and presence of pus on needle aspiration.

All patients were divided in two groups according to surgical procedures carried out.

Group 1: patients undergone Incision and Drainage

Group 2: patients on whom Needle aspiration was carried out

Surgical Procedure: Using 10% Lignocaine, a small curvilinear incision was made in the mucosa over the most prominent part of the swelling with a guarded quinsy knife to prevent a deep incision. A blunt artery forceps was put into the incision and spread until adequate drainage was achieved. Needle aspiration was performed with a wide bore 18-gauge needle on a 10-ml syringe at the site of maximum swelling. The position of the needle is changed and drainage considered adequate when no more pus was aspirated. Any pus noted was aspirated. All the patients were given the same preoperative and postoperative antibiotic therapy along with intravenous fluid and analgesics as needed.

After discharge patients were examined in OPD at one-month interval for three months for evidence of recurrence. The parameters studied were sex predisposition, age of the patient, history of recurrent tonsillitis, hospital stay, PTA recurrence, complications, etc.

Values obtained were analyzed using Microsoft Excel and results were produced.

3. RESULTS

We analyzed 140 patients presented to ENT department with symptoms of peritonsillar abscess during 2 year period (December 2010 to January 2013). 78 belonged to group 1 and 62 in group 2. Results are as follows.

Sex ratio: out of total 140 patients studied, 79 were males and 61 were females, ratio being

Age of presentation: Mean age of presentation in group 1 was 30.42 years and in group 2 was 33.29 years. All the results are presented below in tabulated form in table I.

Duration of symptoms before admission that forced them to seek medical admission was 4.2 days in case of first group and 4.3 days in group 2. Mean hospital stay in days after operation in group 1 was 3.6 days and 2.9 days in group 2.

Out of 78 patients in group 1, PTA recurred once in 4 patients and twice in two patients. Conversely 7 (11.29%) patients showed recurrence in group 2.

Parameters studied:	Group 1 (78)	Group 2 (62)	
Sex	Male	37	42
	Female	41	20
Age of presentation	30.42 years	33.29 years	
Laterality	Right	47	33
	Left	30	29
	Bilateral	01	00
Symptom duration	4.2 days	4.3 days	
Mean hospital stay	3.6 days	2.9 days	
History of recurrent tonsillitis	49 (62.82%)	41 (66.12%)	
Peritonsillar abscess recurrence	6 (7.69%)	7 (11.29%)	
Complications	2 (2.56%)	0 (0%)	

Table I: showing distribution of patients and other parameters in two groups:

4. DISCUSSION

Peritonsillar abscesses are one of the common infections of head and neck region and comprise 30% of soft tissue head and neck abscesses⁴. Peritonsillar abscess generally progresses from tonsillitis to cellulitis and ultimately abscess formation⁵. Most of the studies agree that age group affected is between 20 and 40 years^{3, 6}. In our study, mean age of patients in two groups were 30.42 yrs and 33.29 years respectively. Mastuda et al⁷ (2002) reported that one quarter of patients were 40 years or older. Study by Schraff et al was carried on pediatric population only. Our study revealed that in group 1, females outnumbered males but in second group males were more affected. Khan MI et al³, Habib M et al⁸ recorded higher male preponderance.

Mean hospital stay in group 1 (ID) was 3.6 days and 2.9 days in group 2 (NA) in present study. Khan MI et al³ recorded longer mean hospital stay in NA group. The possible reason may be failure of initial attempt on needle aspiration which was finally dealt with incision and drainage. In present study NA appears to be much effective modality than incision and drainage in terms of hospital stay.

In this study most cases reported were unilateral, more commonly on right side. Only one case was having bilateral presentation. Khan MI et al³ recorded left sided preponderance. Rate of complications were more in group 1 (those underwent incision and drainage), no complications were observed in Needle aspiration group. Both patients presented with postoperative bleeding from surgical site. The rate of complications can be reduced to

great extent if appropriate precautions taken and proper antibiotics are administered. Drainage of pus to maximum extent is the most important step.

Now a day, usual causative bacteria are changing from gram positive cocci (mainly *streptococcus* hemolyticus group A) to anaerobes and gram negative rods⁹. Other authors¹⁰ also agree that microbiological identification studies are useless, since empirical antibiotics therapy is generally effective before culture results are obtained.

5. CONCLUSION

There is great controversy between needle aspiration and incision & drainage. But most of the ENT surgeons opine that incision and drainage is better treatment modality as compared to needle aspiration. But Needle aspiration can be utilized as first step of management of peritonsillar abscess as it is simple, cheap, effective and less traumatic to the patients.

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