A clinical and epidemiological study on peritonsillar abscess in tertiary health center

Richa Gupta¹, Manish Mittal²

¹Department of ENT, SS Medical College, Rewa, Madhya Pradesh, India, ²Department of PSM, Pacific Medical College, Udaipur, Rajasthan, India

Correspondence to: Richa Gupta, E-mail: dr_richa_tulip@yahoo.com

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INTRODUCTION

Peritonsillar abscesses (PTA) are the most common deep neck space infection and are a common complication of tonsillitis with variable sequelae.¹ The most common symptoms at presentation are odynophagia, dysphagia, otalgia, trismus, fever, etc. Hot potato muffled voice and cervical lymphadenopathy are also associated.

Peritonsillar abscess is characterized by a purulent secretion collected between the fibrous capsule of the palatine tonsil and the pharyngeal superior constrictor muscle.²³ 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 year.⁴

The management of PTA varies from antibiotic administration, needle aspiration, incision and drainage, quinsy tonsillectomy. Interval tonsillectomy also can be performed in a few cases. Although antibiotic play a fundamental role in a larger group of patients and can be administered as per the organism found in culture and sensitivity plates some patients still require surgical intervention.

The abscess if left untreated may extend into deep spaces of neck and aspiration of fluid in lower airways. The complications of an untreated peritonsillar abscess include epiglottis, parapharyngeal abscess, retropharyngeal space abscess, jugular vein thrombosis, and sepsis. Intracranial complications include cavernous sinus thrombosis, brain abscesses, meningitis.
MATERIALS AND METHODS

The present study is an analytical review of 22 patients of peritonsillar abscess who presented to the SS Medical College and GM Hospital, Rewa from August 2012 to August 2013. The relevant data were collected with regarding age and sex distribution, the duration between incident and presentation, clinical presentation, management, and complications as per the predetermined questionnaire. All the patients were examined thoroughly with appropriate investigations such as hematological investigations, culture, and sensitivity of pus discharge to determine the organism. The pus was aspirated with needle or incision, and drainage was performed as per the required intervention in different cases.

RESULTS

Most patients 12 (54.54%) belong to 11-20 years age group with age ranging from 12 to 55 years. Six cases were observed in 21-30 years age group followed by 2 cases each in 41-50 and >50 years age group. No case was recorded in 0-10 and 31-40 years age group (Table 1).

Among 22 patients, peritonsillar abscess was found in 14 male patients and 8 female patients (Table 2).

As per socioeconomic status maximum patients of peritonsillar abscess belong to lower class, i.e., 12 (54.54%) followed by lower middle class, i.e., 6 (27.28%), middle class, i.e., 3 (13.64%), and upper class, i.e., 1 (4.54%) (Table 3).

The time of presentation of patient varied from 2 to 8 days. The classic symptoms of deviation of uvula, muffled voice and trismus were invariably present in most of the cases (94%). The majority of patients presented with odynophagia and dysphagia.

Right side was affected in most of the patients, i.e., 13 (59.1%) followed by left side, i.e., 8 (36.36%). Only one case had bilateral peritonsillar abscess (Table 4).

None of the cases showed any complications. The mode of management included mainly incision/drainage in 11 cases, needle aspiration in 4 cases, quinsy tonsillectomy in 1 case, and conservative treatment done in 6 cases.

DISCUSSION

Peritonsillar abscess is commonly encountered clinical entities presenting in everyday practice of otorhinolaryngologist. A peritonsillar abscess is usually a complication of tonsillitis or another bacterial infection. The peritonsillar cellulitis usually leads to abscess due to the formation of microabscesses in the tonsillar crypts. This leads to coalescence of pus in the capsule which ultimately leads to spontaneous rupture or extension of the abscess. The time duration for this process is variable and depends on susceptibility of patients to infection and time of presentation between occurrence and consultation with health-care provider.

The condition usually presents unilaterally and affects any age group from 10 to 60 years but is most common in the age group of 20-40 years. In our study also, this was the most common group with maximum cases in 21-30 years age group. Young children are seldom affected unless they are immunocompromised, but the infection can cause significant airway obstruction in children. The male predominance was seen in our study.

Although bilateral PTA is quite rarely diagnosed, it must be taken into account that tonsillitis is obviously bilateral disease in most cases. Therefore, development of a peritonsillar cellulitis or abscess is quite likely to occur bilaterally. The most common presentation is unilateral and cases with bilateral presentation are rare. In our study, most cases had unilateral presentation with right side being most
common as compared to left side. Only one case had bilateral involvement.

As per socioeconomic status lower class was found to be commonly involved as compared to higher classes. This might be due to inadequate over the counter treatment taken by these classes for acute tonsillitis which leads to persistence of infection. Furthermore, limited access of this class to healthcare facility may be considered responsible.

The most commonly affected demographic consists of those in their late-teens to early 30s; and virtually all had the classic symptoms of trismus, muffled voice, and uvular deviation. Interestingly, fever was only found in 25% of study participants, but the vast majority (91%) of patients had an elevated neutrophil count on presentation.[11] In the present study, the triad of classic symptoms was present in most of the cases.

The majority of surgeons manage patients by needle aspiration, or less commonly by incision and drainage on the first presentation. Clinically, both these methods have been demonstrated to be equally effective.[1,9] Its management has been described widely, from pus aspiration, incision, and drainage to tonsillectomy.[1,10] In our study, the most common management was incision and drainage. A few patients underwent conservative management in the form of antibiotics administration and supportive treatment. Quinsy tonsillectomy was done in one case in the present study. Abscess tonsillectomy is widely performed in Europe and US whereas I and D and needle aspiration followed by interval tonsillectomy appear to be the procedure popular in India.[11] Abscess should be drained to relieve patient of symptoms, and adequate hydration should be done.

The majority of patients do not require tonsillectomy and remain asymptomatic after single attack. The “Wait and observe” policy is safe for most patients presenting with a single attack of peritonsillitis/peritonsillar abscess without a background history of tonsillitis.[12] In our study, most patients remained asymptomatic after single attack. Two patients required tonsillectomy later on as they suffered recurrent attack of tonsillitis.

An untreated or improperly treated peritonsillar infection can evolve into a parapharyngeal space abscess, or cause sepsis, airway obstruction, carotid pseudoaneurysm, and even death.[1] None of the patients developed complications in the present study.

CONCLUSION

This study gives an insight into the prevalence and clinicoepidemiological pattern of peritonsillar abscess. A vast majority of cases can be handled without the development of complications when diagnosed timely and adequately treated.

REFERENCES


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