Research Article

Peritonsillar abscess (Quinsy) : Cross sectional study in Al-Yarmouk teaching hospital

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Abstract

Aims: To find the demographic distribution, by analyzing the data such as age, gender, residence, chief complaint, pharyngotonsillar bulge and seasonal distribution, among Iraqi patients.

Patients and Methods: Cross-sectional study of 42 patients attending outpatient ENT department in Al-Yramouk Teaching Hospital with suspected peritonsillar abscess, for one year period, only 3o patients diagnosed as having peritonsillar abscess, confirmed by positive needle aspiration, were included and analyzed for most common affected age ,gender, chief complaint , residence , pharyngotonsillar bulge and seasonal distribution, while the remaining 12 patients having only peritonsillar cellulitis confirmed by negative needle aspiration, so excluded from the current study.

Results: The most common age group affected were 16-24 years (40%), the most common gender was male (male to female ratio 1,5:1), the most common chief complaint is trismus (77%), the most common months of presentation was November and December of the year (13 and 20 % respectively) and the most common degree of pharyngotonsillar bulge was moderate (63%) .The most common residence was urban (70%).

Conclusions: The most common age group is young adult male, trismus is main chief complaint, and the commonest degree of pharyngotonsillar bulge is moderate.

Keywords: Peritonsillar abscess, Quinsy, Acute tonsillitis

INTRODUCTION

Peritonsillar abscess or 'quinsy' is one of the commonest ENT emergencies, it occurs most frequently as a complication of acute bacterial tonsillitis. As the infection progresses, pus may suppurate and collect around the tonsil capsule leading to the formation of an abscess, usually around the upper pole of the tonsil, the symptoms comprise of odynophagia, dysphagia, voice change ('hot potato voice') and trismus.[1]

The abscess is located between the tonsillar capsules, the superior constrictor muscle of the pharynx. In the pathophysiology of peritonsillar infections, phlegmon would represent a stage prior to an abscess. Although group A -haemolytic streptococcus is usually the pathogen involved in the aetiology of this entity, in most cases the infection is (polymicrobial) mixed flora of aerobic and anaerobic agents.[2] A recent review implicates Weber's glands as playing a key role in the formation of peritonsillar abscesses. This group of 20 to 25 mucous salivary glands are located in the space just superior to the tonsil in the soft palate and are connected to the surface of the tonsil by a duct.[3] The glands clear the tonsillar area of debris and assist with the digestion of

food particles trapped in the tonsillar crypts. If Weber's glands become inflamed, local cellulitis can develop, and as the infection progresses, the duct to the surface of the tonsil becomes progressively more obstructed from surrounding inflammation, the resulting tissue necrosis and pus formation produce the classic signs and symptoms of peritonsillar abscess[4]. The tonsil is generally displaced inferiorly and medially with contralateral deviation of the uvula, the diagnosis of peritonsillar abscess is often made on the basis of a thorough history and physical examination.[5] The goal standard for diagnosis of peritonsillar abscess remains the collection of pus from the abscess through needle aspiration. If the aspirate is negative for pus, the diagnosis will be peritonsillar cellulitis.[6] Controversy remains over the necessity of incision and drainage versus needle aspiration alone. However, most otolaryngologists consider incision and drainage to be the gold standard for treatment.[7] Although it is not routinely performed for the treatment of peritonsillar abscess, immediate tonsillectomy should be considered for patients who have strong indications for tonsillectomy, including those or who have symptoms of sleep apnea, a history of recurrent tonsillitis, or a recurrent non resolving peritonsillar abscess.[3] Death can occur from airway obstruction, aspiration, or hemorrhage from erosion or septic necrosis into the carotid sheath.[5] The aim of this study is to analyze certain data related to peritonsillar abscess in Iraqi patients.

PATIENTS AND METHODS

A prospective study from March 2011 to March 2012 at Al-Yarmouk teaching hospital-department of otolaryngology. The Study included 42 patients with unilateral swelling of tonsil & shifted uvula (suspected peritonsillar abscess). The diagnosis of peritonsillar abscess is often made on the basis of a thorough history and physical examination, and confirmed by needle aspiration, showed negative aspiration in 12 patients, so were excluded, and 30 patients with pus aspirated (peritonsillar abscess). Those 30 patients were analyzed for most common affected age, gender, chief complaint, residence, pharyngotonsillar bulge and seasonal distribution.

Inclusion Criteria: 1. Patients with sore throat, odynophagia, trismus and unilateral swelling of tonsil (pharyngotonsillar bulge), it was graded into 3 grades: 1-Mild: some inferomedial displacement of the tonsil without uvular deviation 2-Moderate: medial displacement of the tonsil and uvula without total obliteration. 3-Severe: inferomedial displacement of the tonsil and uvula with total obliteration of pharyngeal inlet.[8] 2. Positive needle aspiration (pus).

Exclusion Criteria: Negative needle aspiration.

RESULTS

The most common affected age group in current study was (16-24) years (40%), as shown in table1.

Table 1. Patients distribution according to the age groups

Age group (years)	<7	7 - 15	16-24	25-33	34-42	>42	Total
Patients Number	1	4	12	7	4	2	30
Percentage %	4	13	40	23	13	7	1oo

Regarding the gender, in the current study, found that males were more affected than females (60 %, 40 % respectively). The male to female ratio was 1, 5:1. While regarding residency, the current study included 30 patients; the patients from urban area were 20 , those from rural area were 10, [70%,30% respectively], Among 30 patients ,the most common chief complaint was trismus, it was found in 23 patients (77%),as shown in table 2.

Table 2. Patients distribution according to the chief complaint

Symptom	Patients Number	Percentage %
Trismus	23	77%
Odynophagia	4	13%
Drooling of saliva	3	10%
Total	30	100%

Regarding the grades of the pharyngotonsillar bulge, in the current study, the commonest degree of pharyngotonsillar bulge was of moderate degree in 63% of patients, as shown in table 3.

Table 3. Patients distribution according to pharyngo-tonsillar bulge

Pharyngotonsillar Degree	Patients Number	Percentage %
Mild	9	30%
Moderate	19	63%
Severe	2	7%
Total	30	100%

About the seasonal distribution, the current study found that 6 patients presented in December (20%), followed by 4 Patients in November (13%), as shown in table 4.

Table 4. Seasonal distribution

Months of The Year	Patients Number	Percentage %
January	3	10%
February	2	7%
March	3	10%
April	2	7%
May	1	3%
June	1	3%
July	1	3%
August	2	7 %
September	3	10%
October	2	7%
November	4	13%
December	6	20%
TOTAL	30	100%

DISCUSSION

This study showed the most affected age group was 16_24 years (40%).These results were nearly similar to the results obtained by Aldakhil et al,found that most common age group was 22 years.[9] Ong et al, found that it was more likely within age group 10_29 year,[10] Habib et al, found that it was more common in the age range 15-20 years.[11] Marom et al , found that most common affected age group was 15-25 years.[12] Although it may happen at any age but the majority is in young adults, which is surprising in view of the fact that incidence of tonsillitis peaks in childhood, suggesting the aetiolgy must be more complex.[13] In current study, the males were more affected than females (60%, 40% respectively), male to female ratio 1. 5:1. These results were similar to that obtained by Aldakhil.et al, who found that male: female ratio was 1.2: 1,[9] Habib et al, stated that male to female ratio was 1.5:1,[11] while Marom et al, study showed no gender predominance.[12] Hromadkova, found that male to female ratio 1.2:1.[14] This is probably due to the fact that in our community, males are more likely to be involved in outdoor activities, so they are more prone to upper respiratory infections than female. In this study, the patients from urban areas were affected more than those from rural areas (70%, 30% respectively), these results were similar to that obtained by Aldakhil et al, found that patients from urban more affected than those from rural areas (60%, 40% respectively),[9] this may be due to overcrowding population in urban areas. Regarding the chief complaint, in this study, found the most common presenting symptom was trismus in (77%) of patients. These result was similar to that obtained by Cottechia et al, trismus was found, as the most common presenting symptom in (63%) of patients,[15] and by Bauer et al, trismus was found in (71%) of patients[16] as the most common chief complaint, while Blooter et al, the result was different from current results where odynophagia was the most common frequent symptom(98%).[17] Regarding the pharyngotonsillar bulge, the most common grade is moderate (63%), these result was similar to that obtained by Blotter et al, found that(89 %) of patients.[17] and Brodsky et al, found that moderate grade was (67%).[18] Regarding seasonal distribution, in this study, it was commonly in December (20%) followed by November (13%). These results was similar to study done by Takenaka et al ,who found that most patients presented at December and January (18%, 21% respectively),[19] also Spires et al, showed a strong seasonal variation (70%) of patients were seen during October to February,[20] This seasonal distribution due to the highest incidence of streptococcal pharyngitis and exudative tonsillitis,[21] in winter months of the year. The limitation of the current study is probably due to small number of the patients within short period of time. In conclusion, the present study showed that peritonsillar abscess occurred mainly in young adult male, from urban area, the main chief complaint was trismus with moderate pharyngtonsillar bulge, during cold climate of the year.

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