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Original Research

Assessment of Cases of Tonsillitis in Children- A Clinical Study

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***ABSTRACT*:**
Background: Tonsillitis refers to the inflammation of the palatine tonsils and pharyngitis. The present study was conducted to assess cases of tonsillitis in children. **Materials & Methods:** The present study was conducted on 110 children with tonsillitis in age ranged 6-14 years of both genders. In all patients, careful clinical examination was performed. All symptoms and signs were recorded. Two specimens, one from the tonsillar surface and another from the cryptamagna were collected by using sterile cotton swabs, placed in sterile bottles aseptically, brought to the laboratory and subjected for direct microscopic examination. **Results:** Out of 110 patients, males were 60 and females were 50. Age group 6-8 years had 7, 8-10 years had 28, 10-12 years had 30 and 12-14 had 45 patients. The difference was significant (P< 0.05). Among bacteria, 70 were pathogenic and 40 were commensals. 62 were gram positive while 46 were gram negative. Fever was present in 110, sore throat in 90, odynophagia in 85 and constitutional symptoms in 90 patients. The difference was significant (P< 0.05). **Conclusion:** Maximum patients were seen in age group 12-14 years and symptoms reported were fever, sore throat and odynophagia.
Key words: Fever, Sore throat, Tonsillitis

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INTRODUCTION

Tonsillitis refers to the inflammation of the palatine tonsils and pharyngitis, an inflammation of the remainder of the pharynx. Multiple pathogens can contribute to tonsillitis but, in most (up to 80%) cases, the causative agent is a virus.[1] The condition can occur occasionally or recur frequently. Visible white streaks of pus characterized acute tonsillitis on tonsils, and the surface of the tonsils may become bright red colour. The bacterial tonsillitis is caused mainly by *b*- haemolytic Streptococcus, called strep throat and to a lesser extent by Staphylococcus aureus and several other bacteria.[2]

The history provides important information to determine whether the patient has a sore throat, or whether there is a deeper pain in the throat or neck pain. Symptoms of acute sore throat can vary between patients, and will occasionally depend on the cause. Distinguishing between a viral and bacterial cause is difficult in practice, as there is often overlap between the symptoms and signs.[3]

The more common symptoms of tonsils are a sore throat, red swollen tonsils, pain when swallowing, fever, cough, headache, tiredness, chills, swollen lymph nodes in the neck and pain in the ears or neck and the less common symptoms include nausea, stomach ache, vomiting, furry tongue, bad breath, and change in voice and difficulty in opening of mouth.[4]

An odynophagia for 24 to 48 hours, as part of prodromal symptoms of a common cold due to viral infection of the upper respiratory tract, is excluded from the definition of "acute tonsillitis".

Depending on the stage and appearance of the deposits, or the exudate on the tonsils, one can distinguish the catarrhal angina with redness and swelling of the tonsils (early stage) from the follicular angina with stipple-like fibrin deposits from the lacunar angina with confluent deposits (late

stage). The diagnosis of "acute tonsillitis" can be made purely clinical by a specialist. Smears, blood tests or viral evidence is not necessary in most cases.[5] The present study was conducted to assess cases of tonsillitis in children.

MATERIALS & METHODS

The present study comprised of 110 children age ranged 6-14 years of both genders. The study was approved from institutional ethical committee. All patients were informed regarding the study and written consent was obtained.

Data related to participants such as name, age, gender etc. was recorded. In all patients, careful clinical examination was performed. All symptoms and signs were recorded. Two specimens, one from the tonsillar surface and another from the cryptamagna were collected by using sterile cotton swabs, placed in sterile bottles aseptically, brought to the laboratory and subjected for direct microscopic examination. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 110		
Gender	**Males**	**Females**
Number	60	50

Table I shows that out of 110 patients, males were 60 and females were 50.

Table II Age wise distribution of patients

Age group (Years)	Number	P value
6-8	7	0.05
8-10	28	
10-12	30	
12-14	45	

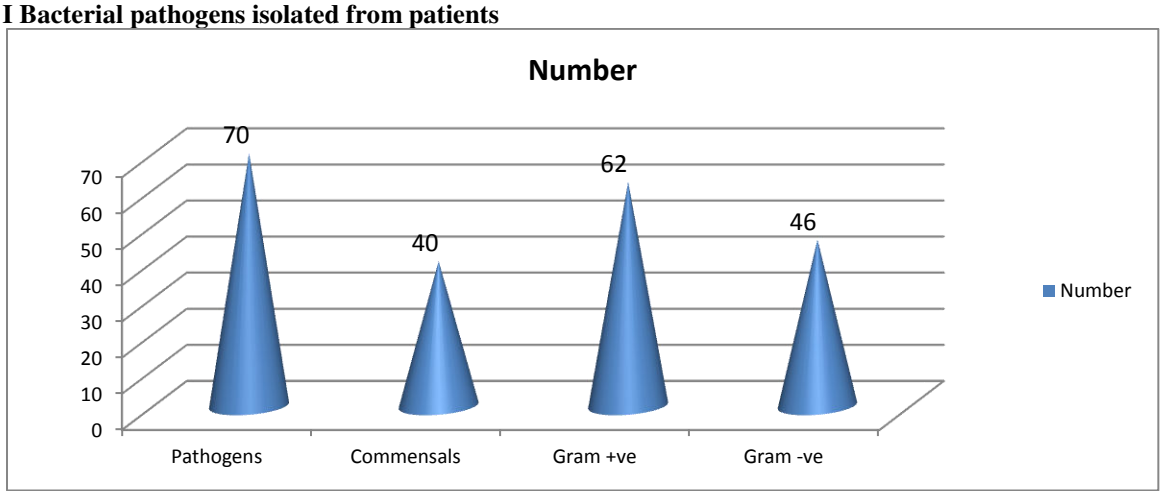
Table II shows that age group 6-8 years had 7, 8-10 years had 28, 10-12 years had 30 and 12-14 had 45 patients. The difference was significant (P< 0.05).

Table III Clinical features in patients

Symptoms	Number	P value
Fever	110	0.05
Sore throat	90	
Odynophagia	85	
Constitutional symptoms	90	

Table III shows that fever was present in 110, sore throat in 90, odynophagia in 85 and constitutional symptoms in 90 patients. The difference was significant (P< 0.05).

Graph I Bacterial pathogens isolated from patients



Graph I shows that among bacteria, 70 were pathogenic and 40 were commensals. 62 were gram positive while 46 were gram negative.

DISCUSSION

Tonsillitis is inflammation of tonsils, a common clinical condition caused by either bacteria or viral infection. It affects significant percentage of population more so in children. The condition can occur occasionally or recur frequently. Acute tonsillitis is characterized by visible white streaks of pus on tonsils and the surface of the tonsils may become bright red colour. The bacterial tonsillitis is caused mainly by β- haemolytic Streptococcus, called strep throat and to lesser extent by Staphylococcus aureus and several other bacteria.[6] The more common symptoms of tonsils are sore throat, red swollen tonsils, pain when swallowing, fever, cough, headache, tiredness, chills, swollen lymph nodes in the neck and pain in the ears or neck and the less common symptoms include nausea, stomach ache, vomiting, furry tongue, bad breath, change in voice and difficulty in opening of mouth.[7] The present study was conducted to assess cases of tonsillitis in children.

In this study, out of 110 patients, males were 60 and females were 50. We found that age group 6-8 years had 7, 8-10 years had 28, 10-12 years had 30 and 12-14 had 45 patients. The difference was significant (P< 0.05).

Vijayashree et al[8] conducted a study to identify the prevalent bacterial pathogens and their antibiotic sensitivity that would indicate the optimum line of treatment and prevent the complications of acute tonsillitis and avoids unnecessary surgical treatment. The occurrence of acute tonsillitis with respect to population distribution was found to vary differently. Among the reported age groups, maximum tonsillitis cases were observed in the preteen age group (6-12 years) with 61% followed by teen age groups (12-18 years) 20%, children (4-5 years) 10% and the least incidence of 9% in youth (19-30 years). The distribution of tonsillitis was more in males patients (55%) compared to female patients (45%). As for as socioeconomic condition concerned, 61% of cases were observed in low income group, 35% in middle income group and a lowest occurrence of 4% in high income group. The bacteriological study of the throat swabs showed that 72% of the cases had pathogens, 10% had commensals, and however, no growth of bacteria was observed in 18% of the samples even after 48 h incubation on culture media. Among the bacteria isolated, 84.7% belonged to Gram positive group and only 15.3% belonged to Gram negative group. We found that common symptoms were fever present in 110, sore throat in 90, odynophagia in 85 and constitutional symptoms in 90 patients. Among bacteria, 70 were pathogenic and 40 were commensals. 62 were gram positive while 46 were gram negative. Hyperplastic tonsils with rhonchopathy are interstitially heated or cooled with a cryoprobe. In the course of 2 weeks, shrinkage of the fabric results with fully preserved tonsil capsule and surface. No tissue is removed and a large part of the lymphatic tissue remains supposedly functional. However, swelling of the tonsils, especially in the perioperative period, may occur, which with very large tonsils with already obstructive narrowing represents a contraindication. The risk of bleeding and the pain are minimal. The procedure can be performed under local anaesthesia, sedation or general anaesthesia.[9]

Operations on the tonsils, on the highly sensitive innervated mucosa and underlying muscle are extremely painful, especially if the capsule is broken and the muscle is exposed. Severe pain and superinfection of the wound bed can lead to prolonged healing courses with a longer hospital stay. In particular, adolescent and adult patients still report pain, exhaustion and fatigue weeks after surgery.[10]

CONCLUSION

Authors found that maximum patients were seen in age group 12-14 years and symptoms reported were fever, sore throat and odynophagia.

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