



PROSPECTIVE STUDY ON MICROBIOLOGICAL PROFILE OF PATIENTS PRESENTING WITH TONSILLITIS IN ENT OPD, ADESH MEDICAL COLLEGE & HOSPITAL, MOHRI, SHAHBAD(M).

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Dr Manpreet Kaur*

Assistant Professor & Head, Department of ENT, Adesh Medical College & Hospital, Shahbad(M), Haryana. *Corresponding Author

Dr P D Sharma

Professor & Head, Department of Paediatrics, Adesh Medical College & Hospital, Shahbad(M), Haryana.

Dr Narinder Kaur

Professor & Head, Department of Microbiology, Adesh Medical College & Hospital, Shahbad(M), Haryana.

ABSTRACT

Respiratory tract infection (RTI) is considered as one of the major public health problems and a leading cause of morbidity & mortality in many developing countries. Tonsils form part of Waldeyer's Ring. They have protective function. Sorethroat is a common complaint with which patient present to ENT OPD. The study population included 40 patients who visited ENT Department with signs and symptoms of tonsillitis. A detailed clinical evaluation of patients was done. Throat swabs with sterile swab sticks were collected & processed for the microbiological profile in Microbiology Deptt. Of AMC&H. Males 28 (70%) were found to be affected more than females 12 (30%). 72.5% of patients were from rural area & 27.5% were from urban area. Sorethroat was the most common symptom(100%) followed by fever (72.5%). It has been seen that beta-hemolytic streptococci was predominant as it was present in 53.33% of cases

KEYWORDS

Tonsillitis, beta-hemolytic streptococci, prospective study

INTRODUCTION:

Respiratory tract infection (RTI) is considered as one of the major public health problems and a leading cause of morbidity & mortality in many developing countries[1]. Upper respiratory tract infection is caused by either viruses or bacteria and bacterial infection may be primary or secondary to viral infection[2].

Tonsils form part of Waldeyer's Ring. They have protective function & act as sentinels at the portal of air and food passage. Tonsils may become seat of infection leading to acute & chronic tonsillitis. The symptoms of tonsillitis vary from person to person depending upon the severity of tonsillitis. Sorethroat is a common complaint with which patients present to ENT OPD. Other symptoms can be difficulty in swallowing, fever, earache & constitutional symptoms like headache, malaise & general bodyaches.

It can be bacterial or viral. Mostly it is viral & self-limited. The bacterial tonsillitis is caused mainly by beta-haemolytic Streptococcus, called strep throat and to a lesser extent by Staphylococcus aureus and several other bacteria [3],[4].

The present study was undertaken to study the various demographic factors and the causative organism.

**MATERIAL & METHOD:**

The study was conducted in the Department of ENT and Microbiology, Adesh Medical College & Hospital, Mohri, Shahbad(M). The study population included 40 patients who visited ENT Department with signs and symptoms of tonsillitis. A detailed clinical evaluation of patients including age, sex, symptoms of tonsillitis was done. Throat swabs with sterile swab sticks were collected from symptomatic cases. The specimen were processed for the microbiological profile in Microbiology Deptt. Of AMC&H.

RESULTS:**Table 1: Distribution of patients according to gender**

Sex	No. of Patients	%
Male	28	70%
Female	12	30%
Total	40	100%

Table 2: Distribution of patients according to age

Age of Patient	No. of Patients	%
0-10	4	10%

10-20	22	55%
20-30	9	22.5%
30-40	2	5%
40-50	2	5%
>50	1	2.5%

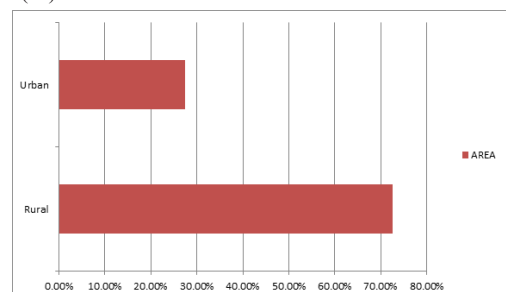
Table 1 shows that out of 40 patients 70%(28) were male & 30%(12) were female.

In Table 2 we can see distribution of patients according to age highest number of tonsillitis was seen in 10-20 age group followed by 20-30 age group. 10% patients were in the 0-10 age group. Two patients were from 30-40 & 40-50 age group each. There was one patient with tonsillitis who was 55 years old with tender palpable lymph node.

Table 3: Distribution of patients according to area

Rural/Urban	No. of Patients	%
Rural	29	72.5%
Urban	11	27.5%
Total	40	100%

Table 3 shows that 72.5%(29) patients were from rural area & 27.5%(11) were from urban area.

**Distribution of patients according to area****Table 4: Distribution of patients according to occupation**

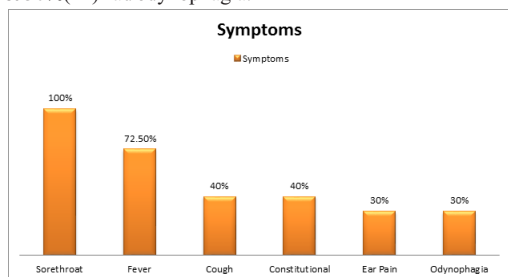
Occupation	No. of Patients	%
Student	28	70%
Homemaker	6	15%
Labourer	4	10%
Preschool	2	5%

Table 4 shows distribution of patients according to occupation maximum patients were students(70%).15% patients were homemakers followed by labourers

Table 5: Distribution of patients according to symptoms

Symptom	%
Sorethroat	100%(40)
Fever	72.5%(29)
Cough	40%(16)
Constitutional	40%(16)
Ear pain	30%(12)
Odynophagia	30%(12)

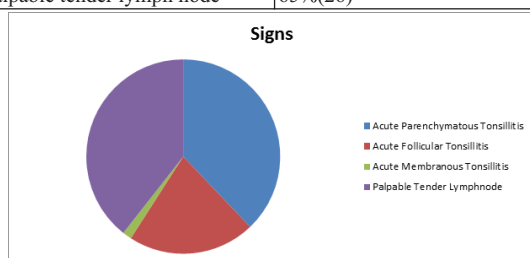
In Table 5 it can be seen that the most common symptom was sorethroat present in 100% patients. 72.5%(29) of patients had fever. Cough was present in 40%(16) patients. 30%(12) of patients had ear pain & 30%(12) had odynophagia.



Distribution of patients according to symptoms

Table 6 : Distribution of patients according to signs

Sign	%
Acute Parenchymatous	62.5%(25)
Acute Follicular	35%(14)
Acute Membranous	2.5%(1)
Palpable tender lymph node	65%(26)



Distribution of patients according to signs

Distribution of patients according to signs can be seen in Table 6, 62.5% of patients had Acute Parenchymatous tonsillitis. Acute Follicular tonsillitis was present in 35% of patients. One patient had Acute Membranous tonsillitis i.e. 2.5%

Palpable tender lymph node was present in 65% i.e. 26 patients.

Distribution of patients according to bacteria isolated

	Number of cases	Percentage
Pathogens	30	75%
Commensals	10	25%

Bacteria isolated	No. of cases	Percentage
beta-hemolytic Streptococci	16	53.33%
Coagulase+ve Staphylococci	4	13.33%
Pneumococci	3	10%
Coagulase +ve Staphylococci & Pnemococci	2	6.66%
Klebsiella & Streptococcus pyogens	1	3.33%
Pnemococci & alpha-haemolytic Streptococci	2	6.66%
Haemophilus influenza	1	3.33%
Pseudomonas & Klebsiella	1	3.33%

The microbiological profile of patients showed that 75% were pathogens & 25% were commensals. It has been seen that beta-hemolytic streptococci was predominant as it was present in 53.33% of cases. It was followed by Coagulase+ve Staphylococci(13.33%) & Pneumococci(10%).

DISCUSSION:

Sorethroat is a common complaint with which patient present to ENT OPD.

The present study was conducted on 40 patients out of which 28 patients were male and 12 were females. The number of male patients outnumbers the female patients. This could be due to the males are more aware of their disease because of the incapacity which is produced by the disease, as they are the main working members of our society.

The condition was found to be more predominant in 10-20 age group followed by 20-30 age group. Higher reporting rates for all acute respiratory illness have been noted in adults in age group 20-29 than as compared with older age group {5}

72.5%(29) patients were from rural area & 27.5%(11) were from urban area.

This can be due to unhygienic conditions, poverty, illiteracy, poor nourishment, improper medical care.

The distribution of patients according to occupation shows that maximum patients were students(70%).15% patients were homemakers followed by labourers . The high incidence seen in students may be due to overcrowding, poor ventilation of classrooms, lack of clean drinking water.

Out of 40 patients in study 100% came with complaint of sorethroat followed by fever which was present in 72.5% of patients. 40% patients had cough & contitutional symptoms. Ear pain & odynophagia was seen in 30% of patients. Similar observations for sore throat and fever was reported by Evans and Dick.

It was seen that 62.5% patients had acute parenchymatous tonsillitis. Acute follicular tonsillitis was seen in 35% of patients whereas only one patient had acute membranous tonsillitis. Palpable tender lymphnode was present in 65% of patients. These observations are in line with the findings of (Veltri et al.) [6].

The microbiological profile of patients showed that beta-hemolytic streptococci(53.33%) was predominant followed by Coagulase+ve Staphylococci(13.33%) & Pneumococci(10%). This observation is similar to the earlier reported works of (Surrow et al.) [7].

CONCLUSION:

The present study was done in ENT OPD, Adesh Medical College & Hospital, Mohri, Shahbad(M) on patients presenting with sign & symptoms of tonsillitis & indicates that bacterial infection is more common in the age group 10-20 followed by 20-30 and in rural area due to unhygienic conditions, poverty, illiteracy, poor nourishment, improper medical care. Maximum patients were students(70%). Sorethroat was present in all patients followed by fever in 72.5 % patients. It was seen that beta-hemolytic Streptococci to be the most predominant bacteria.

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