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Research Article

**OCCURRENCE OF ACUTE TONSILLITIS IN DISTRICT  
SHEIKHUPURA**<sup>1</sup>Hafiz Masood ul Hasan Shauk, <sup>2</sup>Muzamil Hazoor, <sup>3</sup>Muhammad Bilal Hamzah<sup>1</sup>Medical Officer BHU Charhan Murree<sup>2</sup>Medical Officer THQ Murree<sup>3</sup>Medical Officer Bhu Ehsan Pur Kotaddu**Abstract:***Pathogens, gram positive bacteria, gram negative bacteria*

*Abstract: Tonsillitis is considered common clinical condition in children and adults and usually treated under ENT practice. Inflammation of tonsils occurs due to many factors and this condition is called tonsillitis. This is common disease in our area and its treatment is not based upon culture reports. Physicians make choice of antibiotics on the basis of the condition of patient. Patients with multiple attacks of tonsillitis get resistance to medications due to the production of  $\beta$ -lactamase. The chronic tonsillitis can become cause of surgery for children and even in adults. The purpose of the study is to analyze the tonsillitis conditions and to create awareness among the patients in order to avoid unnecessary surgical procedures.*

**Key words:** *Chronic tonsillitis, culture reports, acute tonsillitis, clinical study, pathogens, bacteriological study*

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**INTRODUCTION:**

Tonsillitis is common clinical condition in which inflammation of tonsils occurs and it is because of bacterial or viral infections. The disease is common in District Sheikhpura and is widely observed in children. The disease among children is also because of their eating habits and it can occur once in few months or it reoccurs frequently. In the case of acute tonsillitis the visible bright red color and pus on tonsils were observed. Bhaemolytic Streptococcus cause the bacterial tonsillitis and it is called as strep throat. Staphylococcus aureus is also common bacteria which cause throat infection. The common sign and symptoms of tonsillitis is sore throat, headache, fever, tiredness, sometimes chills, and red inflamed tonsils, painful swallowing and swollen lymph nodes. Sometimes symptoms also include nausea, vomiting, bad breath, oral thrush, and pain in neck and ears. The present study was conducted in District Sheikhpura Punjab Pakistan. The purpose of the study was to identify the bacterial pathogens and their response to antibiotics for better treatment and to avoid the any kind of complications associated with tonsillitis and purpose is also to create awareness among the patients and their attendant to avoid the factors which can cause the sore throat and it reoccurrence. The awareness will help to reduce the chances of surgical procedures.

**MATERIALS AND METHODS:**

The clinical study was carried in the district Sheikhpura in District Hospital, Basic Health Units and Rural Health Centers. The bacteriological study was also carried out by analyzing the sample in local labs and government owned laboratories. The sample size was 100 and it was selected on random basis for the period of six months. With each sample the

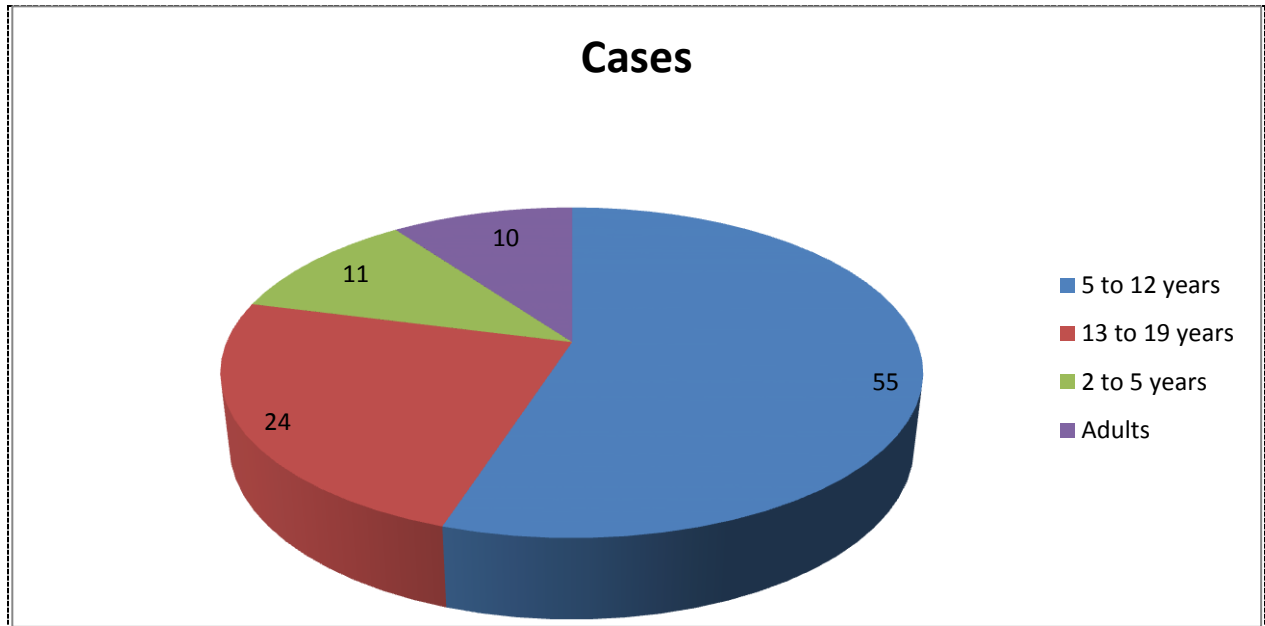
standard operating procedures were applied. The patients of acute tonsillitis were not treated with antibiotics for at least five days before the specimens were collected. Two samples from each patients were collected by using sterilize cotton swab. One sample was collected from tonsillar surface and the other sample was taken from cryptamagna. Both samples were examined for pathogen of individual patient. Antibiotic sensitivity test was also conducted for collected samples. Antibiotics discs for different strains like chloramphenicol, cephotaxime, cephalexin, Penicillin, amikacin ampicillin, erythromycin, gentamycin, penicillin, ciprofloxacin were all tested for the collected sample and inhibition pattern was checked and noted. The patients were given antibiotics according to the result of their pathogen as a remedy to treat their illness. When they were completely recovered they were also observed for follow ups for few months to observe the reoccurrence of tonsillitis. Different indicators were also used while conducting the study like demographics, social economic status, age, gender and clinical manifestation.

**RESULTS AND DISCUSSIONS:**

Tonsillitis is a common disease in District Sheikhpura and the no of patient may vary from area to area. From the results it was obvious that the maximum cases of tonsillitis were present among the pre teen age group 55 % followed by the teen agers 24 %. Among youth the incidence of tonsillitis was less only 10 % due to their good immunity and may be awareness about their health. Among the children from age group 2 to 5 years 11 percent. Among the selected population the results vary from acute tonsillitis to chronic cases.

**Table 1: Age group Distribution**

Sr#	Age group	Cases	Percentage
1	2 to 4 years	11	11 %
2	5 to 12 years	55	55 %
3	13 to 19 years	24	24 %
4	Adults	11	10 %



The male patient's ratio of getting the tonsillitis was 60 percent as compared to the female patients who got disease were only 40 percent of the sample.

**Table 2; Gender Distribution**

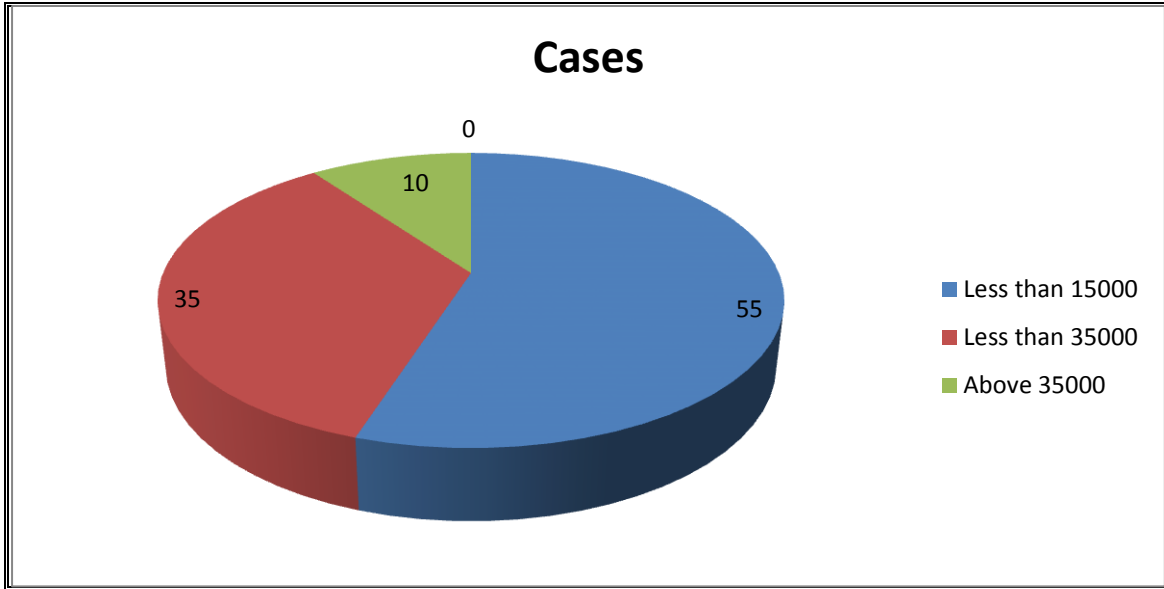
Sr#	Gender	Cases	Percentage
1	Female	40	40 %
2	Male	60	60%

The patients came from different background and socio economic status and the distribution of cases regarding income is as follow

**Table 3: Income Group Distribution**

Sr#	Income	Cases	Percentage
	Less than 15000	55	55 %
	Less than 35000	35	35 %
	Above 35000	10	10 %

The patients who belong to the poor and low income group constituted 55 percent of the sample 35 percent of the sample was from lower middle income group and the patients who belong to middle class consisted of 10 percent of the total sample. The poor socio economic condition can be said very conducive for getting of multiple diseases due to many factors like low immunity, malnourishment, poor living conditions; access to sanitation is poor, illiteracy, unhygienic conditions and improper medical treatments by quakes etc .

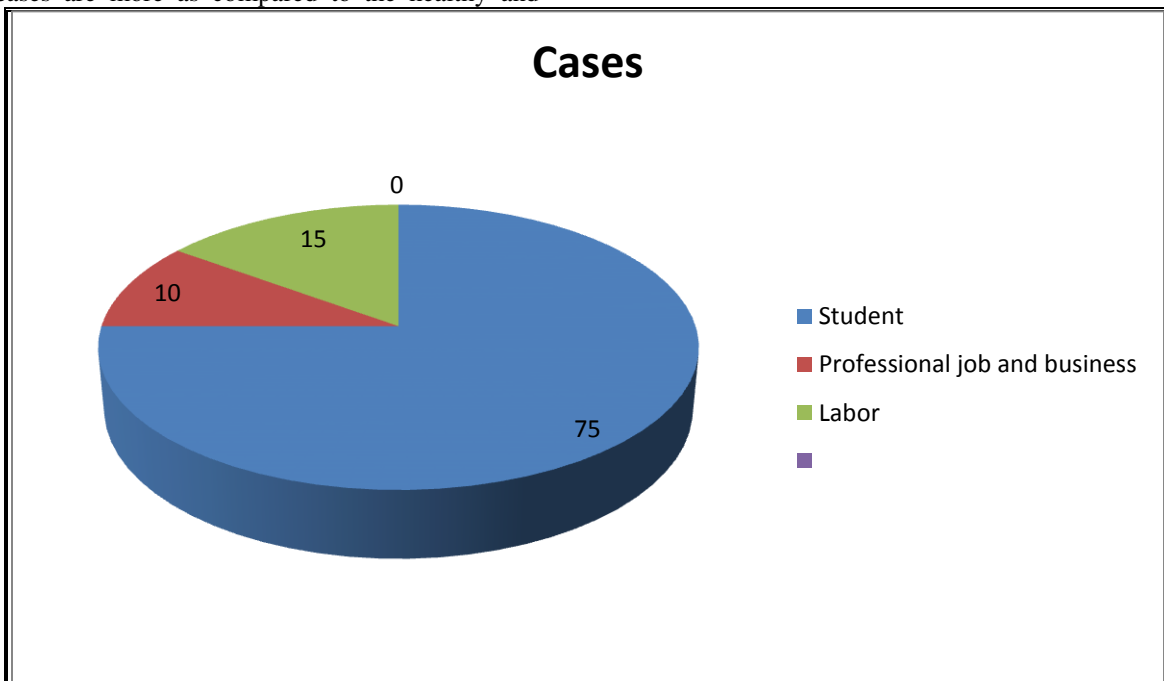


**Table 4: Occupation**

Sr#	Occupation	Cases	Percentage
1	Student	75	75 %
2	Professionals(Job and Business)	10	10 %
3	Labour Work	15	15 %

The students constituted in high ratio among the cases it may be because of the crowded class rooms, poor ventilations and interactions with healthy and sick children. Also students from marginalized socio economic group have usually low immunity and stunting growth; therefore their chances of getting diseases are more as compared to the healthy and

wealthy children.75 percent of the cases were from student group and the skilled workers were 10 percent and the labor class was 15 percent of the sample. Their tonsillitis was because of low quality food intake and poor working conditions.



**Sign and Symptoms:**

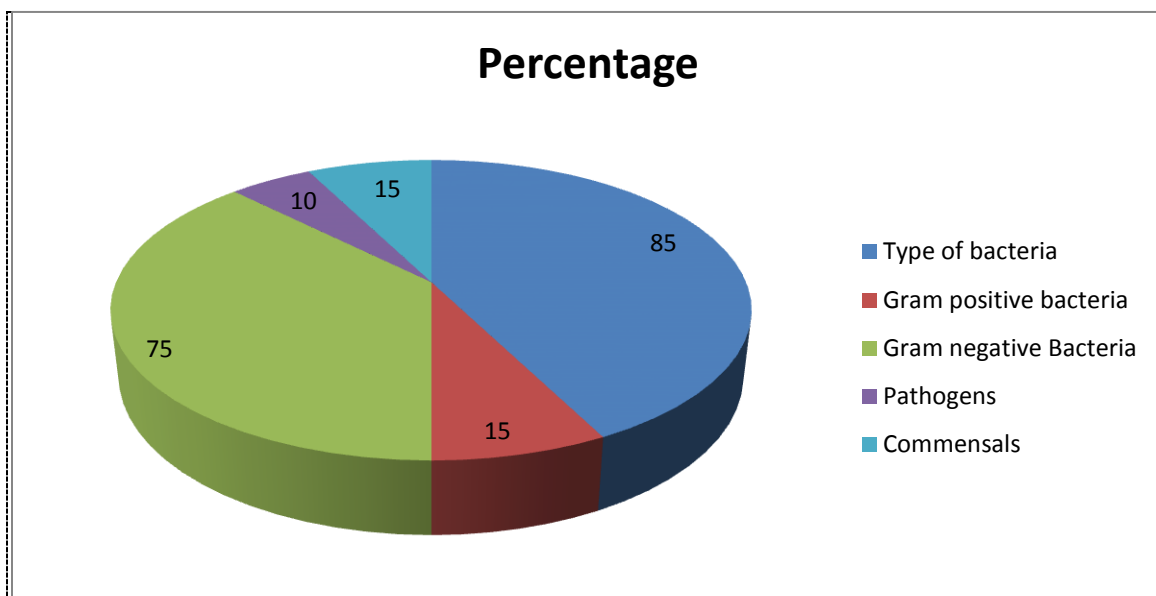
Sign and symptoms in all patients were all almost similar like fever, sore throat, headache and sometime nausea. Majority of the sample like 60 percent were having the signs of paranchymatous tonsillitis and among them 38 percent were having signs of acute follicular and two cases of acute membranous tonsillitis registered and 75 percent of all cases have the digastrics lymph node.

**Bacteriological Results:**

The swab sample collected from the throat was analyzed for bacteriological presence and the pathogens were found in 75 percent and in 15 percent of samples bacterial growth was missing and in 10 percent of the sample result of commensals. The bacteria which belonged to gram positive were 85 percent and the remaining 15 percent belonged to gram negative bacteria. The sample which showed no bacterial growth were those cases who were either taking antibiotics before coming for medical treatment and either they have viral infection.

**Table 5: Bacteriological Study**

Sr #	Type of bacteria	Percentage
1	Gram positive bacteria	85
2	Gram negative Bacteria	15
3	Pathogens	75
4	Commensals	10
5	No bacterial growth	15



The results of bacteriological tests showed the presence of different kinds of bacteria like coagulase positive Staphylococci, Corynebacterium diphtheria,  $\beta$ - haemolytic Streptococci, Pneumococci. 75 percent of the tonsillitis is caused by the monobacterial infections which are followed by the polybacterial infections which constituted 25 percent. Coagulase positive Staphylococci, Klebsiella, Pneumococci, Streptococcus pyogenes and also Pseudomonas were observed in the selected sample.

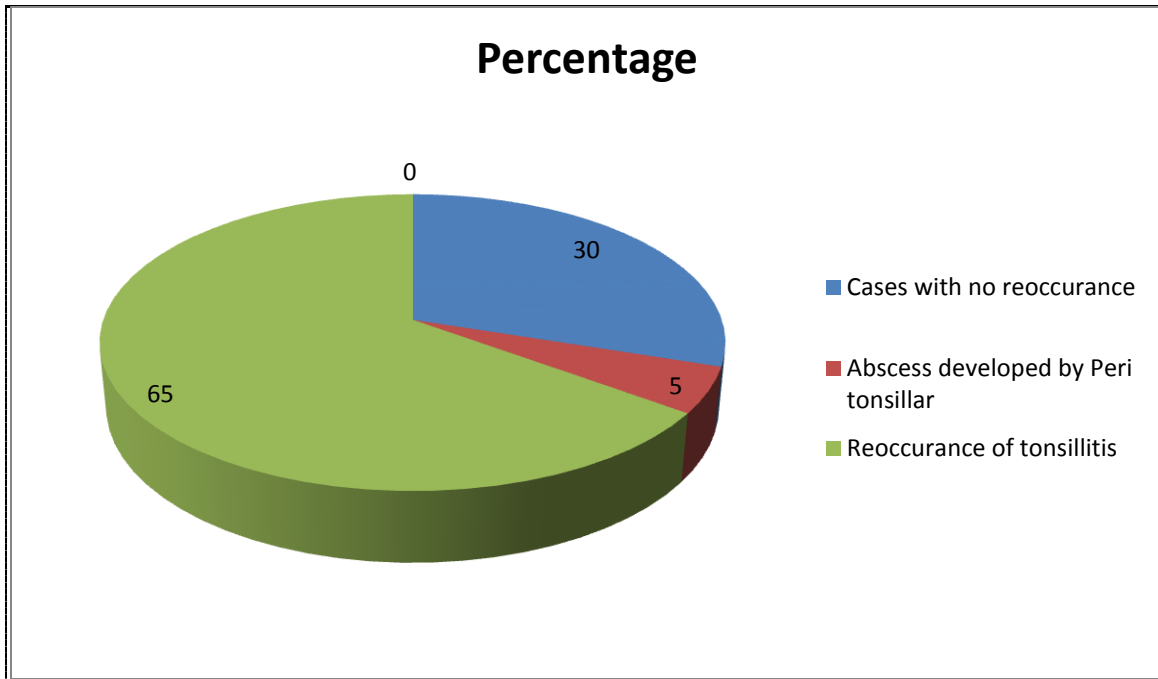
When isolated bacteria was tested for their sensitivity to different antibiotic and other drugs the gram positive bacteria were more responsive to antibiotics

as compared to the gram negative bacteria. The antibiotics which gave good response were like amikacin, penicillin, cephalexin, erythromycin, cefotaxime, ampicillin, ciprofloxacin, chloramphenicol and to the gentamycin. Resistance to drug was observed in 2 cases of coagulase positive staphylococci

The results of the patients who came for follow ups showed that the tonsillitis were reoccurred to the 65 percent of the patients and reoccurrence was not observed in 30 percent of cases. Only five percent of the patients got abscess and were referred to ENT for further procedure.

**Table 6: Follow ups Results**

Sr#	Follow up Results	Percentage
	Cases with no reoccurrence	30
	Abscess developed by Peri tonsillar	5
	Reoccurrence of tonsillitis	65



### CONCLUSION

The purpose of the study was to observe the ratio of tonsillitis in the population and to also analyze the bacterial pathogen and their response to the antibiotics. Also different factors were analyzed which were the cause of tonsillitis in the low income group and among the students. Poor hygienic conditions, low immunity, poor quality of food, maltreatment of the tonsillitis by quacks and other socioeconomic factors were the leading causes of acute tonsillitis among the district Sheikhpura. If the community is well trained about hygiene and awareness is created among them to avoid the reoccurrence of the disease.

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