

ORIGINAL RESEARCH

Complications of tonsillitis in study population

Dr. Kuldeep .S

Associate Professor, Department of Oto-Rhino-Laryngology, Fathima Institute of Medical Sciences, Kadapa, Andhra Pradesh, India

Corresponding Author

Dr. Kuldeep .S

Associate Professor, Department of Oto-Rhino-Laryngology, Fathima Institute of Medical Sciences, Kadapa, Andhra Pradesh, India

Received: 08 March, 2022

Accepted: 12 April, 2022

ABSTRACT

Background: Inflammation of the tonsils, or tonsillitis, is a common clinical illness that can be brought on by a viral or bacterial infection. The present study was conducted to assess complications of tonsillitis. **Materials & Methods:** 94 patients of tonsillitis of both genders were selected. A thorough examination was carried out. Clinical features and complication of tonsillitis was recorded. **Results:** Out of 94 patients, males were 54 and females were 40. The most common clinical features were dysphagia in 62, cough in 45, lymphadenitis in 23, sore throat in 84, and fever in 22 cases. Complications were peritonsillar abscess in 12, rheumatic fever in 3 and acute glomerulonephritis in 4 patients. The difference was significant ($P < 0.05$). **Conclusion:** Acute glomerulonephritis, rheumatic fever, and peritonsillar abscess were the most frequent consequences of tonsillitis.

Key words: Peritonsillar abscess

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution- Non Commercial-Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

INTRODUCTION

Inflammation of the tonsils, or tonsillitis, is a common clinical illness that can be brought on by a viral or bacterial infection. ENT-related illnesses are the main cause of mortality for children in the pediatric population.¹ Thankfully, there is very little death, but the number of complications is continually rising. A considerable portion of the population is impacted, especially youngsters. The illness may flare up seldom or often.² Acute tonsillitis is mostly caused by Beta Streptococcus, sometimes known as strep throat, and to a lesser extent by Staphylococcus aureus and numerous other bacteria. Acute tonsillitis is characterized by visible white streaks of pus on the tonsils and the surface of the tonsils may become bright red. The more typical tonsil symptoms include fever, soreness, coughing, headaches, red, enlarged tonsils, sore throats, and others.³

Acute tonsillitis is diagnosed clinically, and it can be challenging to differentiate between bacterial and viral infections.⁴ When diagnosing bacterial tonsillitis, rapid antigen testing has a very low sensitivity; nevertheless, more precise tests take longer to produce results. Small cultures of bacteria are grown from

tonsillitis patients.⁵ Additional causes include CMV, toxoplasmosis, HIV, hepatitis A, rubella, and infectious mononucleosis from Epstein-Barr virus infection. Compared to usual conservative treatment, such as cautious waiting with or without analgesics or antibiotic treatment, it is still uncertain when tonsillectomy should be carried out.⁶ However, tonsillectomy has shown to be a significant intervention to enhance the patient's health-related quality of life (HRQoL) in cases of chronic or recurrent tonsillitis. These patients experience symptoms unrelated to tonsils as well. Additionally, they record more medical visits.⁷ The present study was conducted to assess complications of tonsillitis.

MATERIALS & METHODS

The present study consisted of 94 patients of tonsillitis of both genders. All enrolled patients gave their written consent for participating in the study.

Data such as name, age, gender etc. was recorded. A thorough examination was carried out. Clinical features and complication of tonsillitis was recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 94		
Gender	Males	Females
Number	54	40

Table I shows that out of 94 patients, males were 54 and females were 40.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Clinical features	dysphagia	62	0.91
	cough	45	
	lymphadenitis	23	
	Sore throat	84	
	Fever	22	
Complications	Peritonsillar abscess	12	0.04
	Rheumatic fever	3	
	Acute glomerulonephritis	4	

Table II shows that most common clinical features were dysphagia in 62, cough in 45, lymphadenitis in 23, sore throat in 84, and fever in 22 cases. Complications were peritonsillar abscess in 12, rheumatic fever in 3 and acute glomerulonephritis in 4 patients. The difference was significant ($P < 0.05$).

DISCUSSION

Either tonsillitis alone or in conjunction with a generalized pharyngitis can occur. The literature is ambiguous when it comes to the clinical differentiation between tonsillitis and pharyngitis, and the illness is frequently referred to as "acute sore throat." This definition does not include a sore throat that subsides over the course of 24 to 48 hours while a small upper respiratory tract infection is prodroming.^{8,9} The primary focus in diagnosing acute tonsillitis is clinical, and determining if the infection is bacterial or viral is important if antibiotics are being explored. The present study was conducted to assess complications of tonsillitis.

We found that out of 94 patients, males were 54 and females were 40. In the ENT inpatient department, Sarode et al¹⁰ documented the incidence and treatment of chronic tonsillitis. Ninety of the 510 patients who were admitted to the ENT inpatient department had chronic tonsillitis. Of these ninety, forty-two showed signs of surgery, while the remaining patients were treated conservatively. At the time of discharge, the complications and patient outcomes were documented. A semi-structured questionnaire that had been pretested was used to gather all the required information. Tonsillitis was most common in people aged 11–21 (56%); 21–30 (20%). Male proportions were higher (61.96%) than female proportions (38.03%). Hematoma (28.58%) was the most frequent post-tonsillectomy consequence, followed by fever (26.19%), odynophagia (23.80%), sore throat (14.28%), uvular edema (4.76%), and damage to the Eustachian tube (2.38%). Hematoma was the most frequent after-effect of tonsillectomy. Chronic tonsillitis was prevalent in the age range of 11 to 21 years. Hematomuvularedema and Eustachian tube damage were typical complications following tonsillectomy.

We found that most common clinical features were dysphagia in 62, cough in 45, lymphadenitis in 23, sore throat in 84, and fever in 22 cases. Complications were peritonsillar abscess in 12, rheumatic fever in 3 and acute glomerulonephritis in 4 patients. Hackenberg et al¹¹ calculated the health benefit for various tonsillar infection stages. Using the 15D questionnaire, hospitalized patients with acute tonsillitis or peritonsillar abscesses were questioned about their HRQoL. After undergoing a tonsillectomy, patients were evaluated again six months later. The study involved 65 patients in total. The utility for both acute tonsillitis and peritonsillar abscess was 0.72. The mean health utility six months post tonsillectomy was 0.95.

According to research by Vijayashree MS et al¹², there are differences in the prevalence of acute tonsillitis depending on the demographic distribution. Out of all the age categories that were recorded, the preteen age group (6–12 years) had the highest number of tonsillitis cases (61%), followed by the adolescent age group (12–18 years) with 20%, the children (4–5 years) with 10%, and the youngest age group (19–30 years) with 9%. Male patients (55%) had a higher prevalence of tonsillitis than female patients (45%). In terms of socioeconomic status, 61% of cases were found in the low-income group, 35% in the middle-income group, and 4% in the high-income group. The occurrence of symptoms revealed that 73% of the patients had a fever, odynophagia, and sore throats in all of the patients. Additionally, it was noted that just 1% of patients had acute membranous tonsillitis, while 59% of patients showed acute paranchymatous tonsillitis indications and 40% showed acute follicular tonsillitis signs. In 70% of the cases under investigation, the palpably sore digastric lymph node was noted.

CONCLUSION

Authors found that acute glomerulonephritis, rheumatic fever, and peritonsillar abscess were the most frequent consequences of tonsillitis.

REFERENCES

1. Middleton DB, D'Amico F, Merenstein JH. Standardized symptomatic treatment vs penicillin as initial therapy Streptococcal pharyngitis. *J. Pediatrics* 1988; 113(6): 1089-1094.
2. Evans AS, Dick EC. Acute pharyngitis and tonsillitis in University of Wisconsin students. *JAMA* 1964; 190 (8): 699-708.
3. Veltry, RW, Sprinkle, PM, Mc Clugg JE. Epstein- Barr Virus associated with episodes of recurrent tonsillitis. *Arch. Otolaryngol* 1975; 101(9): 552-556.
4. Kainulainen, S.; Koivusalo, A.M.; Roine, R.P.; Wilkman, T.; Sintonen, H.; Törnwall, J.; Thorén, H.; Lassus, P. Long-term quality of life after surgery of head and neck cancer with microvascular reconstruction: A prospective study with 4.9-years follow-up. *Oral Maxillofac. Surg.* 2020; 24:11–17.
5. Charlson, M.E.; Pompei, P.; Ales, K.L.; MacKenzie, C.R. A new method of classifying prognostic comorbidity in longitudinal studies: Development and validation. *J. Chronic Dis.* 1987; 40: 373–383.
6. Brook I, Yocum P, Friedman EM. Aerobic and anaerobic bacteria in tonsils of children with recurrent tonsillitis. *Ann. Otol. Rhinol. Laryngol* 1981; 90: 261-263.
7. Krober MS, Bass JW, Michels GN. Streptococcal paryngitis- placebo controlled double blind evaluation of clinical response to penicillin therapy. *JAMA.*1985; 253(9): 1271-1274.
8. Stafford N,VonHaacke N, Sene A, Croft C. 1986: The treatment of recurrent tonsillitis in adults. *J. Laryngol. Otol* 1986; 100 (2): 175-177.
9. San Giorgi, M.R.M.; Aaltonen, L.M.; Rihkanen, H.; Tjon Pian Gi, R.E.A.; van der Laan, B.; Hoekstra-Weebers, J.; Dijkers, F.G. Quality of life of patients with recurrent respiratory papillomatosis. *Laryngoscope* 2017; 127: 1826–1831.
10. Sarode DN, Bhole AV. Prevalence of chronic tonsillitis at ENT inpatient department: A hospital-based study. *Medpulse-Int J.* 2015;2:766-88.
11. Hackenberg B, Büttner, M.; Schöndorf, M, Strieth, S.; Schramm, W.; Matthias, C.; Gouveris, H. Quality of Life Assessment for Tonsillar Infections and Their Treatment. *Medicina* 2022; 58: 589.
12. Vijayashree MS, Viswanatha B, Sambamurthy BN. Clinical and bacteriological study of acute tonsillitis. group. 2014;1(2):3.