

Original Article

A Comparative Study of Quality of Life in Adults with Chronic Tonsillitis after Tonsillectomy and after Conservative Treatment

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ABSTRACT:

Background: Chronic tonsillitis is one of the most common otorhinolaryngological disease and tonsillectomy continues to be one of the most common surgical procedure as well as the standard for treating adults with this clinical entity. **Aim of the study:** To compare the efficacy of tonsillectomy to conservative treatment on QOL in adults with chronic tonsillitis. **Materials and methods:** All patients between the age group of 18-50 years attending the ENT O.P.D. with complaints of sore throat and painful swallow were screened by detailed history and clinical examination. The patients with a clinical diagnosis of chronic tonsillitis were explained about this study in their vernacular language and those willing to participate in our study and willing to give a written informed consent were included in the study as per inclusion and exclusion criteria. We gave them an option of either a tonsillectomy or a conservative treatment explaining all the advantages and disadvantages of each modality of treatment. **Results:** Patients were in the age group of 18 years to 50 years in both cases and control group. Maximum number of patients were in the age group of 18 to 28 years in both groups. In cases, 10 (22.72%) patients had more than 6 episodes of sore throat and 34(77.27%) patients had 4 to 6 episodes of sore throat before tonsillectomy which reduced to 39(88.63%) patients with no episodes of sore throat after tonsillectomy and 5(11.37%) patients with 1 to 3 episodes. **Conclusion:** From the results, we can conclude that in adult patients with chronic tonsillitis, Tonsillectomy in comparison to Conservative treatment significantly reduces the episodes and duration of sore throat, painful swallow, fever, cervical lymphadenitis and halitosis. Thus, even with the availability of broad spectrum antibiotics, tonsillectomy provides a significant symptom relief and improvement in Quality of Life in adults and hence should be advised as a treatment of choice in patients with chronic tonsillitis.

Key words: Chronic tonsillitis, conservative treatment, tonsillectomy.

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INTRODUCTION:

Chronic tonsillitis is one of the most common otorhinolaryngological disease and tonsillectomy continues to be one of the most common surgical procedure as well as the standard for treating adults with this clinical entity¹. Chronic tonsillitis is poorly defined, but may be the appropriate term for sore throat of atleast 3 months duration accompanied by tonsillar inflammation.² It has an enormous physical and psychosocial impact in adults ranging from frequent attacks of sore throat, pain on swallowing, halitosis, multiple visits to physician, repeated antibiotic therapy and increased cost of treatment.³

The Scottish Intercollegiate Guidelines Network suggest what are felt to be the reasonable indications for tonsillectomy. Patient should meet all of the following criteria:

- Sore throats due to tonsillitis.
- Five or more episodes of sore throat per year
- Symptoms for atleast a year.
- Episodes of disabling sore throat which prevent normal function.⁴

The benefits of tonsillectomy in terms of reducing the number of attacks and seriousness of each attack of tonsillitis need to be identified. A patient's decision to proceed with the surgery is usually influenced by the severity and frequency of attacks of tonsillitis. Many patients often choose to shun operation for the fear of anticipated post-operative pain.⁵

Despite the popularity of tonsillectomy and the enthusiasm with which it is offered and sought, high quality evidence of efficacy is sparse.⁶ There is still a controversy on the effectiveness of tonsillectomy in adults as there is lack of high level evidence.⁷ Thus, it is important to have a robust evidence in order to confidently state to patients whether tonsillectomy will improve their quality of life (QOL) or not.⁸ Our study aims to compare the efficacy of tonsillectomy to conservative treatment on QOL in adults with chronic tonsillitis.

MATERIALS AND METHODS:

All patients between the age group of 18-50 years attending the ENT O.P.D. with complaints of sore throat and painful swallow were screened by detailed history and clinical examination. The patients with a clinical diagnosis of chronic tonsillitis were explained about this study in their vernacular language and those willing to participate in our study and willing to give a written informed consent were included in the study as per inclusion and exclusion criteria. We gave them an option of either a tonsillectomy or a conservative treatment explaining all the advantages and disadvantages of each modality of treatment. Those patients who were ready to undergo tonsillectomy underwent routine blood and urine investigations along with bleeding time and clotting time and after anaesthesia fitness were posted for tonsillectomy under general anaesthesia. The patients with chronic tonsillitis presenting with acute attack were given a conservative treatment and those willing for surgery

were operated after acute attack subsides. Tonsillectomy was done by dissection and snare method. The patients who underwent tonsillectomy were grouped as cases and those with conservative treatment were grouped as controls. A total of 64 patients participated in the study, 44 subjects in cases and 20 subjects in control. All the patients were given a questionnaire and were asked to fill it in the beginning of study. The patients in both groups were informed to visit our OPD after one year of tonsillectomy or conservative treatment apart from their routine OPD visits for throat complaints or post op visits. At the end of one year, they were again given the questionnaire and were asked to fill it up.

The data was collected, results were tabulated and statistical analysis was done. Means of cases and controls before tonsillectomy and after tonsillectomy were compared by using paired t test in Instat software. Proportions of cases and controls before and after tonsillectomy were compared by Z test for proportion.

RESULTS:

Table 1 shows the age wise distribution of the subjects. Patients were in the age group of 18 years to 50 years in both cases and control group. Maximum number of patients were in the age group of 18 to 28 years in both groups. Table 2 shows the number of episodes of sore throat in cases and controls. In cases, 10 (22.72%) patients had more than 6 episodes of sore throat and 34(77.27%) patients had 4 to 6 episodes of sore throat before tonsillectomy which reduced to 39(88.63%) patients with no episodes of sore throat after tonsillectomy and 5(11.37%) patients with 1 to 3 episodes [Fig 1]. In controls, 9 (45%) patients had more than six episodes and 11(55%) had 4 to 6 episodes of sore throat before and no change in episodes after one year of conservative treatment [Fig 2].

TABLE 1: AGE WISE DISTRIBUTION

Age	Case	%	Control	%
18-28	26	59.09	11	55
29-39	16	36.36	7	35
40-50	2	4.54	2	10
Total	44	100	20	100

Fig 1: AGE WISE DISTRIBUTION

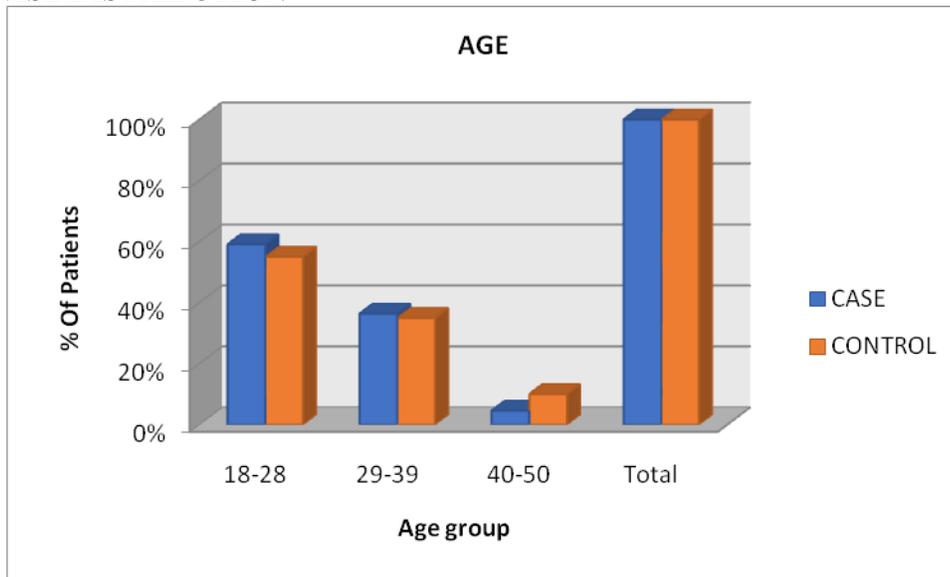


TABLE 2: NUMBER OF EPISODES OF SORE THROAT

No. of episodes of sore throat	CASE					CONTROL				
	Pre-Op	%	Post - Op	%	p VALUE	Initial	%	FOLLOW UP	%	P VALUE
0	0	0	39	88.63	<0.0001 S		0	0	0	NS
1-3	0	0	5	11.37	=0.023 S	0	0	0	0	NS
4-6	34	77.27	0	0	<0.0001 S	11	55	11	55	NS
>6	10	22.72	0	0	<0.001 S	9	45	9	45	NS
TOTAL	44	100	44	100		20	100	20	100	

(S - Significant)

FIGURE 2: COMPARISON OF EPISODES OF SORE THROAT IN PRE AND POST OP CASES

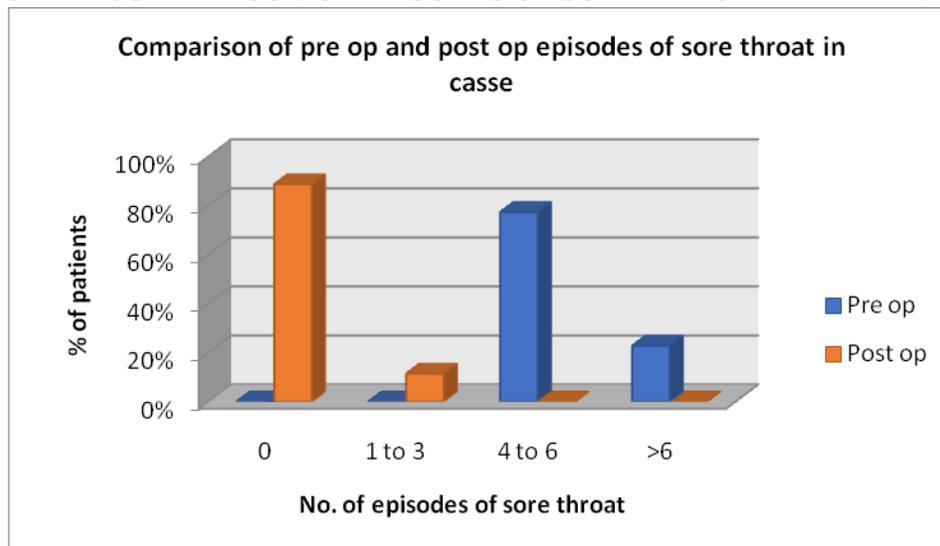
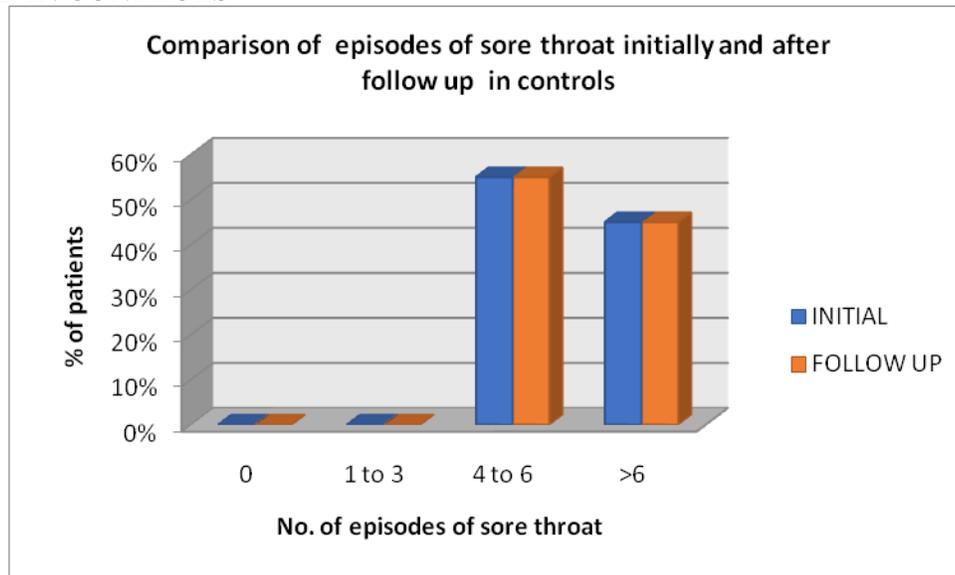


FIGURE 3: COMPARISON OF EPISODES OF SORE THROAT INITIALLY AND AFTER FOLLOW UP IN CONTROLS



DISCUSSION:

In the present study, the patients between the age group of 18 to 50 years of either sex with a diagnosis of chronic tonsillitis were included in the study. After a written informed consent patients willing to undergo tonsillectomy were grouped as cases and they underwent surgery whereas, those not willing for tonsillectomy were offered a conservative treatment with each episode of acute tonsillitis and were grouped as controls. Thus, we had 44 cases and 20 controls. The patients in both the groups were given a questionnaire to be filled by them in the beginning and one year after either a tonsillectomy or conservative treatment. The data was collected and statistical analysis was done using paired t test in Instat software and Z test. The range of age group in our study was 18-50 years in both cases as well as in controls. Mean age in cases was 26.86 years and in control was 28.1 year. The minimum age in the case study group was 18 and maximum age was 42 yrs. Whereas, in controls minimum age was 18 and maximum was 48years. Maximum number of patients in both the groups (cases 59% and controls 55%) were in the age group 18 to 28 years.

In a study done by T.Koskenkorva et al⁹, the age group was 15 to 46 years and the mean age was 26 years. In another study done by Hsu et al¹⁰, age group was 18 to 52 years and mean age was 26.3 years. In a study done by GotzSenska et al³, the

youngest patient was 18 years and oldest was 62 years. Median age was 26 years with a mean of 28 years. Our study correlates with the above studies. In cases, 10 (22.72%) patients had more than 6 episodes of sore throat and 34(77.27%) patients had 4 to 6 episodes of sore throat before tonsillectomy which reduced to 39(88.63%) patients with no episodes of sore throat after tonsillectomy and 5(11.37%) patients with 1 to 3 episodes. In controls, 9 (45%) patients had more than six episodes and 11(55%) had 4 to 6 episodes of sore throat before and no change in episodes after one year of conservative treatment.

In our study, in cases the mean episodes of sore throat per year decreased from 5.54±1.13 before tonsillectomy to 0.31±0.90 after tonsillectomy which was statistically very significant with p<0.0001. In controls it was 6.3±1.49 before one year and 5.95±1.31 after one year of follow up and statistically there was no significant difference p=0.40. Study done by the following authors used mean(standard deviation), mean net change and p value to compare the results one year before and one year after tonsillectomy.

In a study done by Hsu et al¹⁰ the mean episodes of sore throat per year decreased from 8.37(SD=3.75) before tonsillectomy to 1.43(SD=1.86) after tonsillectomy (p<0.005) which correlates with our study in cases but does not correlate with the control group of our study which

shows that tonsillectomy has an impact in reducing the episodes of sore throat. Wolfensberger and Mund also observed a significant reduction from an average of six episodes to two episodes of sore throat per year after tonsillectomy¹¹.

In our study, in case group all 44(100%) patients reported reduced number of sore throat episodes after tonsillectomy with 39(88.63%) with no episode of sore throat.5(11.37%) patients had sore throat after tonsillectomy but were with one to three episodes. On examination they were found to have pharyngitis which responded to conservative treatment. While in controls there was no reduction in number of episodes of sore throat in any patient. Study done by Harry R.F.Powell etal¹², Mui etal¹³ and Kim etal¹⁴ showed 87%, 88% and 87.4% of patients respectively with reduced number of episodes of sore throat after tonsillectomy. Above studies correlates with our study in cases but not in controls. In our study there was a statistically significant difference in pre op and post op cases with $p < 0.001$ whereas in controls there was no statistically significant difference as $p > 0.05$. In the studies done by Oluwasanmi etal¹⁵ and Got Senska etal³, there was a significant difference in p value before and after tonsillectomy. Above studies correlate with the case group of our study but not in controls.

CONCLUSION:

From the results, we can conclude that in adult patients with chronic tonsillitis, Tonsillectomy in comparison to Conservative treatment significantly reduces the episodes and duration of sore throat, painful swallow, fever, cervical lymphadenitis and halitosis. Thus, even with the availability of broad spectrum antibiotics, tonsillectomy provides a significant symptom relief and improvement in Quality of Life in adults and hence should be advised as a treatment of choice in patients with chronic tonsillitis.

REFERENCES:

1. Schwentner I, Hofer S, Schmutzhard J, Deibl M, Sprinzl GM. Impact of tonsillectomy on quality of life in adults with chronic tonsillitis. *Swiss Med Wkly* 2007 11; 137(31-32): 454-61.
2. Darrow DH, Siemens C. Indications for tonsillectomy and adenoidectomy. *Laryngoscope*. 2002;112:6-10.
3. Gotz Senska, Stefanie Ekermann, Stefan Ernst, Hildegard Lax, Philipp Dost. Recurrent Tonsillitis in adults-Quality of life in after tonsillectomy. *Deutsches Arzteblatt International* 2010; 107(36):622-628
4. Bhattacharya N, Kepnes L J. Economic benefit of tonsillectomy in adults with chronic tonsillitis. *Ann Otol Rhinol Laryngol*. 2002;111(11):983-8.
5. Bhattacharya N, Kepnes LJ, Shapiro J. Efficacy and quality of life impact of adult tonsillectomy. *Arch Otolaryngol Head Neck Surg*. 2001;127(11):1347-50
6. Scottish Intercollegiate Guidelines Network. Management of sore throat and indications for tonsillectomy. Scottish Intercollegiate guidelines network clinical guideline 34. 1999. SIGN 2001-2005 [5 January 2001]
7. Calman K. Quality of Life in cancer patients-an hypothesis *J Med Ethics* 1984;10:124-7.
8. N Andreou, S Hadjisymeou, J Panesar. Does tonsillectomy improve quality of life in adults? A systemic literature review. *The Journal of Laryngology & Otolology* (2012), 127, 332-338.
9. Koskenkorva T, Koivunen P, Penna T, Teppo H, Alho OP. Factors affecting quality-of-life impact of adult tonsillectomy. *J Laryngol Otol* 2009; 123(9): 1010-14.
10. Hsu AP, Tan KL, Tan YB, Han HJ, Lu PK. Benefits and efficacy of tonsillectomy for recurrent tonsillitis in adults. *Acta Otolaryngol* 2007; 127(1): 62-4
11. Wolfensberger M, Mund MT: Evidenzbasierte Indikation zur Tonsillektomie. *Ther Umsch* 2004; 61: 325-8.
12. Harry R.F.Powell, N Mehta, N Daly, G.W.R.Watters. Improved quality of life in adults undergoing tonsillectomy for recurrent tonsillitis. Is adult tonsillectomy really a low priority treatment? *Eur Arch Otorhinolaryngol* (2012) 269:2581-2584
13. Mui S, Rasgon BM, Hilsinger RL, Jr. Efficacy of tonsillectomy for recurrent throat infection in adults. *Laryngoscope* 1998; 108(9): 1325-8.
14. Kim JY, Lee CH. Clinical study on the efficacy of tonsillectomy. *Acta Otolaryngol Suppl* 1988; 454: 265-72.
15. Adenike Folake Oluwasanmi, FRCS (ED), Martin Robert Thornton, MRCS (ED), Hisham Saleh Khalil, FRCS (ORL-HNS), MD, Paul Anthony Tierney, MA, FRCS (ORL-HNS). Effect of tonsillectomy on recurrent sore throats in adults: patients perspectives. *The Journal of Laryngology & Otolology*, E7, 1 of 5. 2005.

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