

ORIGINAL ARTICLE

Comparison of Tonsillectomy and Conservative Treatment for Chronic Tonsillitis in adults

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ABSTRACT:

Background: Tonsillitis is an inflammation of the pharyngeal tonsils. The inflammation may affect other areas of the back of the throat, including the adenoids and the lingual tonsils. Acute tonsillitis is an infection of the tonsils triggered by one of the several types of bacteria or viruses, and peritonsillar abscesses can also occur. **Aim of the study:** To compare tonsillectomy and conservative treatment for chronic tonsillitis in adults. **Materials and methods:** The study was conducted in the Department of ENT of the medical institution. For the study population, we selected patients who were diagnosed with chronic tonsillitis in the department. The patients were given a choice of treatment between a tonsillectomy and a conservative treatment with explaining all the advantages and disadvantages of each modality of treatment. A total of 90 patients participated in the study, 50 opted for tonsillectomy and 40 opted for conservative treatment. 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. **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 30 years in both groups. In study group, 15 patients had more than 6 episodes of sore throat and 33 patients had 4 to 6 episodes of sore throat before tonsillectomy which reduced to 43 patients with no episodes of sore throat after tonsillectomy and 6 patients with 1 to 3 episodes. In control group, 7 patients had more than six episodes and 23 had 4 to 6 episodes of sore throat before and no change in episodes after one year of conservative treatment. **Conclusion:** From the results of the present study, this can be concluded that tonsillectomy is a significantly more efficacious method of treatment for chronic tonsillitis as compared to conservative treatment.

Keywords: tonsillectomy, tonsillitis, recurrent tonsillitis, conservative treatment

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INTRODUCTION:

Tonsillitis is an inflammation of the pharyngeal tonsils. The inflammation may affect other areas of the back of the throat, including the adenoids and the lingual tonsils. Acute tonsillitis is an infection of the tonsils triggered by one of the several types of bacteria or viruses, and peritonsillar abscesses can also occur. Chronic tonsillitis is a tenacious infection of the tonsils which may result in tonsil stones. Recurrent tonsillitis ensues when an individual suffers from several incidents of tonsillitis per year. Both chronic and recurrent tonsillitis involve repeated occurrences of inflamed tonsils which can impact severely on a patient's quality of life.^{1,2} Tonsil plays an important role in immune defense mechanism especially in the production of IgA and regulation of secretory immunoglobulin production against many exogenous microorganisms.³ It also protects from the invading pathogens as a part of Waldeyer's ring, which is responsible for B- and T-cell activities in response to a variety of antigens. Thus, it is involved in humoral and cellular immunities.⁴ Although the lifetime prevalence of common recurrent tonsillitis is 7%–11% and has significant burden on families, most of the previous studies on tonsillitis evaluated only the role of upper respiratory tract infections and not enough attention has been given to

improve quality of life (QOL). An ideal tonsillectomy operation usually results in little morbidity and mortality and improves patients QOL.⁵ Conventional dissection method is still the most common standard procedure for tonsillectomy with the advantage of being a safe procedure without any tonsillar remnants. In general, tonsillectomy also affects the patient's immune system, especially significant levels of interleukin is diminished postoperatively.⁶

Hence, the present study was conducted to analyze lymphocytes count in premenopausal women with iron deficiency anemia.

MATERIALS AND METHODS:

The study was conducted in the Department of ENT of Hind Institute of Medical Sciences, Safedabad, Barabanki UP. The ethical clearance for study protocol was obtained from ethical committee of the institution. For the study population, we selected patients who were diagnosed with chronic tonsillitis in the department. The patients were educated about the protocol of the study and a written consent was obtained for participation in the study. The patients were given a choice of treatment between a tonsillectomy and a conservative treatment with 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 90 patients participated in the study, 50 opted for tonsillectomy and 40 opted for conservative treatment. 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 statistical analysis of the data was done using SPSS version 11.0 for windows. Chi-square and Student’s t-test were used for checking the significance of the data. A p-value of 0.05 and lesser was defined to be statistical significant.

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 30 years in both groups. Table 2 shows the number of pre-operative and post-operative episodes of sore throat in study group. In study group, 15 patients had more than 6 episodes of sore throat and 33 patients had 4 to 6 episodes of sore throat before tonsillectomy which reduced to 43 patients with no episodes of sore throat after tonsillectomy and 6 patients with 1 to 3 episodes [Fig 1]. In control group, 7 patients had more than six episodes and 23 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 of the participants

Age	STUDY GROUP	Control
18-30	32	18
31-40	10	12
41-50	8	10
Total	50	40

TABLE 2: Number of pre-operative and post-operative episodes of sore throat in study group

No. of sore throat episodes	Number of patients		p-value
	PRE-OP	POST -OP	
0	0	43	0.005
1-3	2	6	0.02
4-6	33	1	0.001
>6	15	0	0.009
TOTAL	50	50	

Fig 1:

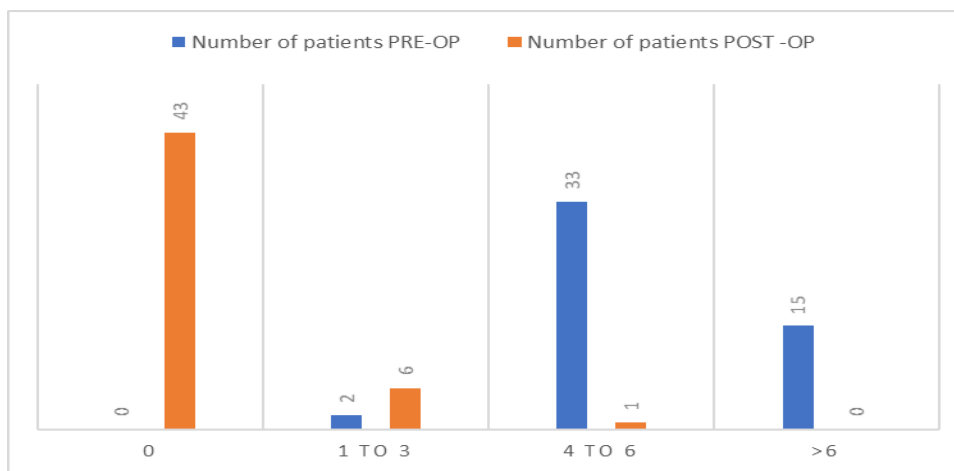
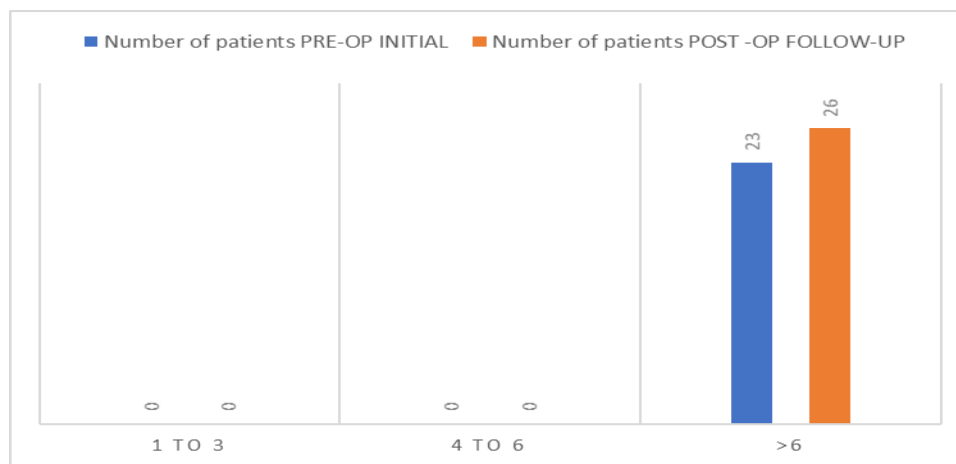


TABLE 2: Number of pre-operative and post-operative episodes of sore throat in control group

No. of sore throat episodes	Number Of Patients		p-value
	Initial	Follow-Up	
0	0	0	0.09
1-3	0	0	0.08
4-6	23	26	0.12
>6	17	14	0.15
TOTAL	40	40	

Fig 2:



DISCUSSION:

In the present study, we observed significant decrease in the number of episodes of sore throats in patients who went for tonsillectomy. On the other hand, there was not any significant change in the symptoms of patients even after one year of conservative treatment. The results were statistically significant for study group. The results were compared with previous studies. Witsell DL et al described changes in disease-specific and global quality of life (QOL) for adults with recurrent or chronic tonsillitis at 6 months and 1 year after tonsillectomy using two instruments: the Tonsil and Adenoid Health Status Instrument (TAHSI) and the SF-12 Health Survey (12-item short form of SF-36 Health Survey). Seventy-two adults, mean age 28.0 years (SD 7.2 years), were enrolled with follow-up available for 42 adults at 6 months and for 40 adults at 1 year. Patients showed significant improvements in all six subscales of the TAHSI: airway and breathing, infection, health care utilization, cost of care, eating and swallowing, and behavior. Significant improvements were also found in the physical functioning subscale of the SF-12 at 1 year. They concluded that after tonsillectomy for recurrent and chronic tonsillitis, we found large improvements in disease-specific and global QOL. Steinbichler T et al created and validated a German version of the Tonsil and Adenoid Health Status Instrument (TAHSI) for evaluation of tonsillectomy outcome in adult patients with chronic or recurrent tonsillitis. 46 healthy volunteers were assessed twice in a 6 week interval with the TAHSI questionnaire. Their results

were compared with 45 patients suffering from chronic tonsillitis before tonsillectomy and 6 months following surgery. For internal consistency, Cronbach’s alpha was calculated; to identify normal score values, the optimum cutoff between healthy and diseased individuals was identified with receiver operating characteristic analysis; and responsiveness was assessed using Guyatt’s Responsiveness Index (GRI). Cronbach’s alpha for all questions was 0.92. Test- retest intraclass correlation coefficient was 0.89. Mean score for the healthy individuals was 7.0. The optimum cut off score between healthy and diseased was 20 with a sensitivity of 80% and a specificity of 90% to differentiate controls from tonsillectomy patients. It was concluded that the TAHSI performed well in this validation tests and is considered a favorable instrument to evaluate the effectiveness of tonsillectomy in adults with chronic or recurrent tonsillitis.^{7, 8}

Koskenkorva T et al assessed the quality of life of adult patients with recurrent tonsillitis after tonsillectomy, and to determine predictive factors for patient satisfaction. In a prospective cohort study, a Glasgow benefit inventory questionnaire was posted to 70 adult patients six months after tonsillectomy for recurrent tonsillitis. Data were obtained on patient characteristics, risk factors, tonsillitis history, and clinical and operative findings. The patients were also assessed using self-completed diary data collection regarding acute symptoms (i.e. fever, throat pain, cough and rhinitis), tonsillitis episodes and visits to a doctor, either three to six months before tonsillectomy or

six months after tonsillectomy. Predictive factors were sought for inclusion in the worst 30th percentile of patients (i.e. Glasgow benefit inventory score under 18), regarding post-operative change in quality of life. Sixty-two patients (40 females, 22 males; age range 15-46 years) returned the questionnaire (response rate 89 per cent). The mean total Glasgow benefit inventory score after tonsillectomy was +26 (standard deviation 14). The mean scores for Glasgow benefit inventory subscales were: general health +25 (standard deviation 18), social functioning +5 (standard deviation 14) and physical functioning +55 (standard deviation 23). The only factors associated with low patient satisfaction were a small number of tonsillitis episodes (diary-based data) and days with fever before tonsillectomy. They concluded that adult patients with recurrent tonsillitis seemed to be generally pleased with their tonsillectomy. The more symptoms they had prior to surgery, the greater was their improvement in quality of life. No other patient- or disease-related factors were associated with patient satisfaction. Senska G et al assessed the effect of tonsillectomy in adults with recurrent tonsillitis on their quality of life and on their use of medical resources. 114 patients who had had at least three episodes of acute tonsillitis in the 12 months preceding tonsillectomy were evaluated pre- and postoperatively with a questionnaire developed by the authors, and with the Glasgow Benefit Inventory. 97 patients (85%) filled out the questionnaires completely. The Glasgow Benefit Inventory revealed an improvement in the overall score (+19) and in the partial scores for general well-being (+18) and physical health (+39). The degree of support from friends and family was unchanged (± 0). Significant decreases were observed in visits to a physician, analgesic and antibiotic consumption, days off from work, and episodes of sore throat. The number of visits to a physician because of sore throat decreased from an average of five preoperatively to one postoperatively; the number of episodes of sore throat, from seven to two; and the number of days taken off from work, from twelve to one per year. 65% of the patients surveyed took analgesics for sore throat preoperatively, 7% postoperatively. 95% took antibiotics for sore throat preoperatively, 22% postoperatively. Although this study had a number of limitations (small size, retrospective design, short follow-up), it was able to show that tonsillectomy for adults with recurrent tonsillitis improves health and quality of life and reduces the need to consume medical resources.^{9,10}

CONCLUSION:

From the results of the present study, this can be concluded that tonsillectomy is a significantly more efficacious method of treatment for chronic tonsillitis as compared to conservative treatment.

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