

# Quality of Life in Children after Adenotonsillectomy or Tonsillectomy

Lohitha  
PG, Student  
Saveetha Medical College  
Thandalaum, Chennai

Dr. Shoba. K  
Prof., Otorhinolaryngology  
Saveetha Medical College  
Thandalaum, Chennai

## Abstract:-

### ➤ Introduction

Tonsillectomy and adenotonsillectomy though being the frequently performed surgical procedures in children there are only few studies on patients subjective impression on the outcome of the surgery on quality of life .

### ➤ Aim and Objective

To access the patient's subjective impression on outcome of tonsillectomy or adenotonsillectomy on quality of life.

### ➤ Material and Methods

By asking to patient and their parents on phone using a validated questionnaire and Documenting the responses by considering all three (mom, dad, child) of their responses, But the parents responses were given the priority.

### ➤ Result and Discussion

All of the responses showed improvement in quality of life but varied between little better to much better. This study showed improvement in intellectual and mental behaviour, for which most of the studies showed no change. In this study apart from asking the child's parents about the child's quality of life post tonsillectomy we asked the child also this helped in recording more accurately the effects of tonsillectomy on quality of life.

### ➤ Conclusion

Tonsillectomy or adenotonsillectomy has positive Impact on child's quality of life .

## I. INTRODUCTION

Tonsillectomy and Adenotonsillectomy is one of the most frequently performed surgical procedures in children. Though[1] there are many studies on various techniques, postoperative pain ,indications for tonsillectomy, number of visits to doctor ,need for antibiotics etc. very few studies had thrown light on patients subjective impression on the outcome of the surgery. This study looks at the patient's parent's impression on the quality of life of their children.

## II. METHODOLOGY

### ➤ Study Design:

Cross sectional study

### ➤ Study Area:

Children operated for tonsillectomy or adenotonsillectomy in saveetha medical college hospital, Thandalam

### ➤ Case Selection:

Sixty children consecutively operated over a period of two years were selected from records. Fourteen years was taken as the upper age limit. questionnaire was made and the questions in it were asked to the parents on phone, also the children(patients) were asked about the changes they are experiencing for subjective evaluation but as there responses alone can't be taken valid as they are below 18 years there parents responses were given priority. Both mother and dad were tried to reach and both of them were asked and the responses recorded are based on the collection of all three responses (the child and both of its parents ). Among the sixty we selected only fifty children's parents were able to reach and responded (response rate of 83 %).out of the respondents the age group of children ranged from 4 to 14 years with the mean age being 9.45 years. The male female ratio was 1:0.7

We adapted the questionnaire from the Glasgow children's Benefit Inventory (GCBI)[2], which has 24 questions on the consequences of a specified intervention on various aspects of the child's day to day life.[3]In that few questions were replaced in such a way that it serves as a more effective tool in accessing the effectiveness of tonsillectomy in particular and one question about overall satisfaction was added.[4] The questionnaire prepared was translated into tamil (mother tongue) and it was tested for its consistency and internal validity.[5] The questions were in such a way that they assess the child's QOL in terms of emotion, physical health, learning and viability. For each question a 5 point Likert-type rating scale was given with the extremes representing 'much better 'and 'much worse'.

The responses given in terms of numerical responses were added and divided by 24 and a summary score for each questionnaire was obtained.[6]The score was multiplied by 50 to produce result on a scale from -100 (maximum harm) to +100 (maximum benefit).

**III. OBSERVATION AND RESULTS**

50 parents responded and the scores were calculated. The scores ranged from 66.6 to 92.6. As the minimum score itself is greater than fifty, on overall there was a improvement in all aspects of life like physical,

behavioural, social, need for medical resources. For the question asking for overall satisfaction thirteen parents replied as little satisfied and thirty seven of the parents replied as much satisfied. None of them replied as not satisfied.

Suffering	Much Worse	Little Worse	No Change	Little Better	Much Better
Nasal Obstruction	0	0	0	14	36
Daily Weariness	0	0	0	24	26
Low Weight	0	0	4	37	9
Bad Breath	0	0	4	10	36
Cold	0	0	0	17	33
<b>Sleep Disorders</b>					
Snores	0	0	2	11	37
Choking/Suffocation	0	0	0	14	36
Restless Sleep	0	0	0	10	40
Difficulty To Wake Up	0	0	0	36	14
<b>Problems Of Speech And Deglutition</b>					
Difficulty To Swallow Solid Foods	0	0	0	14	36
Choking	0	0	0	2	48
Suffocated Speech	0	0	0	21	29
Nasalized Speech	0	0	0	19	31
Bad Pronunciation	0	0	0	12	38
<b>Emotional Discomfort</b>					
Irritability	0	0	8	11	31
Impatience	0	0	4	23	23
Inadvertent	0	0	5	17	28
Ridiculed Because of Snoring	0	0	3	9	38
<b>Activity Limitations</b>					
Plays Normally	0	0	0	11	39
Takes Part In Sports	0	0	7	14	29
Goes To School or Day Nursery	0	0	0	7	43
School Performance	0	0	8	11	31
Overall Life	0	0	0	13	37
<b>Others</b>					
Visit To Doctor and Antibiotic Need	0	0	0	7	43

Table 1

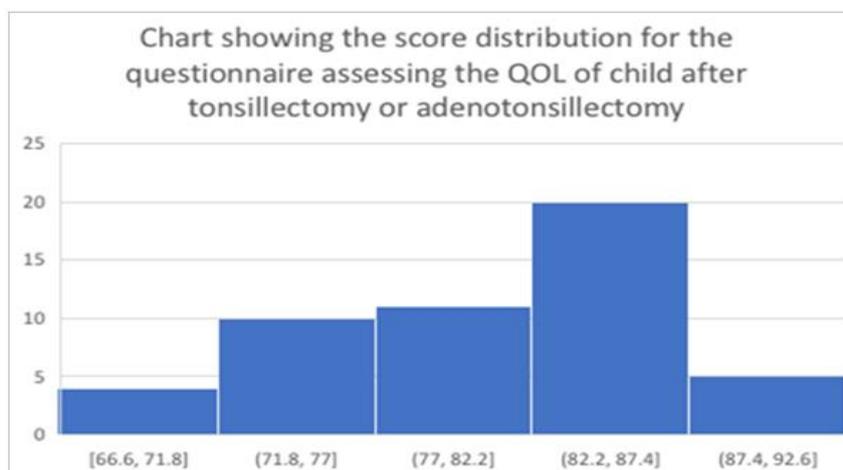


Fig 1

#### IV. DISCUSSION

There [7] are many studies on topics 'life quality and tonsillectomy', 'benefit and tonsillectomy', 'economic and tonsillectomy' but many of these studies when we inspect closer looked mainly at the effectiveness of the procedure with regard to the objective clinical postoperative outcome. Thus here [8] in this study we recorded the effectiveness of the procedure in terms of patients subjective impression. As the study group we selected are children their parents were also asked and the parents responses were documented but for every case both parents as well as the child's impression was asked and the responses documented are based on all three responses giving parents' responses, the priority. Thus effectiveness of The surgery can be assessed better. This study showed improvement in intellectual, emotional and social behaviour of the child in comparison to the study by Neelima Gupta et al [9] which showed no change in all the above three aspects in most of the children. Improvement [10] in mental abilities through light on the effectiveness of the surgery in one of the important aspects of the child's life, the mental development. This study thus could pay way for the proving of hypothesis that association between OSAS and neurological and neurocognitive development disorders, as with attention deficit disorder and learning disability with or without hyperactivity, which is being studied by various studies.

#### V. CONCLUSION

From the above study we conclude that tonsillectomy definitely leads to improvement in QOL in children by decreasing the number of doctor visits, need for antibiotics, improving the cognitive functions. But As the sample size was small any tests of statistical significance couldn't be applied. Also our results can only give insight into short-term quality of life improvements. However with all these limitations, this study concludes that tonsillectomy improves the QOL of children.

#### REFERENCES

- [1]. Jessner L, Blom GE, Waldfogel S. Emotional implications of tonsillectomy and adenoidectomy on children. *The psychoanalytic study of the child*. 1952 Jan 1;7(1):126-69.
- [2]. McKee WJ. A controlled study of the effects of tonsillectomy and adenoidectomy in children. *British journal of preventive & social medicine*. 1963 Apr;17(2):49.
- [3]. Paradise JL. Tonsillectomy and adenoidectomy. *Pediatric otolaryngology*. 1996;2:915-26.
- [4]. Goldstein NA, Fatima M, Campbell TF, Rosenfeld RM. Child behavior and quality of life before and after tonsillectomy and adenoidectomy. *Archives of Otolaryngology–Head & Neck Surgery*. 2002 Jul 1;128(7):770
- [5]. Goldstein NA, Post JC, Rosenfeld RM, Campbell TF. Impact of tonsillectomy and adenoidectomy on child behavior. *Archives of Otolaryngology–Head & Neck Surgery*. 2000 Apr 1;126(4):494-8.

- [6]. Tran KD, Nguyen CD, Weedon J, Goldstein NA. Child behavior and quality of life in pediatric obstructive sleep apnea. *Archives of Otolaryngology–Head & Neck Surgery*. 2005 Jan 1;131(1):52-7.
- [7]. Garetz SL. Behavior, cognition, and quality of life after adenotonsillectomy for pediatric sleep-disordered breathing: summary of the literature. *Otolaryngology--Head and Neck Surgery*. 2008 Jan;138(1\_suppl):S19-26.
- [8]. Kubba H, Swan IR, Gatehouse S. The Glasgow Children's Benefit Inventory: a new instrument for assessing health-related benefit after an intervention. *Ann Otol Rhinol Laryngol* 2004;113(12):980-6.
- [9]. Constantin E, Kermack A, Nixon GM, Tidmarsh L, Duchrme FM, Brouillette RT. Adenotonsillectomy improves sleep, breathing and quality of life but not behaviour. *J Pediatr* 2007;150(5):540-6,546.e1.
- [10]. Mancikavasagam J, Ali S, Quraishi MS. General practitioners' versus consultants' perspective on indications for paediatric tonsillectomy: current trends. *J Laryngol Otol* 2012;126(2):163-7.