



كلية الطب - جامعة ديالى

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**((The consequences of tonsillectomy
with or without adenoidectomy on
children life style in Diyala
Governorate))**

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بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ
" وَقُلْ رَبِّ زِدْنِيْ عِلْمًا " سورة طه
آیة: ١١٤

صَدَقَ اللّٰهُ الْعَظِیْمِ

Gratitude

I would like to thank my supervisor , family and every one how helped me during this journey .

Introduction:

The palatine (or faucial) tonsils, commonly referred to as tonsils, are bundles of lymphatic tissue located in the lateral oropharynx. They sit in the isthmus of the fauces, bordered anteriorly by the palatoglossal arch and posteriorly by the palatopharyngeal arch. The palatine tonsils also serve as a component of Waldeyer's ring which in addition to the palatine tonsils consists of the adenoids, tubal tonsil, and lingual tonsil. They are located bilaterally on the lateral aspect of the oropharynx and near the entrance of the gastrointestinal and upper respiratory tracts, the palatine tonsils come into contact with various inhaled or ingested pathogens and other materials that may gain exposure to the body through the mouth. They serve as an important first line defense against inhaled or ingested pathogens by providing initial immunological barrier to insults [1]. Tonsillitis is inflammation of the tonsils, which most often affects children between preschool-age and mid teenage years (5- 15 years). Most cases of tonsillitis are caused by viral infections but bacterial infections also may cause tonsillitis the most common bacteria is streptococcus pyogenes [2]. The common signs and symptoms of acute tonsillitis include red, swollen tonsil, white or yellow coating or patches on tonsil, sore throat, difficult or painful swallowing, fever, bad breath, scratchy, muffled or hoarse voice, neck pain or stiff neck, enlargement and tender lymph nodes. In young children who are unable to describe how they feel, signs include drooling due to difficult or painful swallowing, refusal to eat, unusual fussiness [3]. Tonsillitis leads to many problems that may be local or systemic, local problems include most commonly peritonsillar abscess or called quinsy due to spread of infection into tissue around tonsils, which cause severe pain and can interfere with swallowing and even breathing. Also spread of infection into retropharyngeal and parapharyngeal space to cause abscess. Systemic problems include spreading infections to many sites of the body lead to sinusitis, otitis media, meningitis, brain abscess, scarlet fever, glomerulonephritis, rheumatic fever, obstructive sleep apnea, septicemia, jugular vein thrombosis, also lead to chronic or recurrent tonsillitis [4]. Chronic tonsillitis or recurrent tonsillitis is described as more than seven episodes in one year, more than five episodes annually for more than two years, more than three episodes annually for more than three years, or two weeks or more of lost school in one year due to tonsillitis, tonsil may be atrophic or hypertrophic. The clinical features of sore throat plus the presence of temperature more than 38.3°C, cervical lymphadenopathy (tender lymph nodes or more than 2cm), tonsillar exudates or positive culture for group A beta-hemolytic streptococcus. Because of this recurrent inflammation, tonsils need to be removed.

. Tonsillectomy is one of the more commonly performed operations in childhood, which mean removal tonsils [3, 4, 5].

Tonsillectomy is indicated in many conditions which include chronic tonsillitis seven episodes in a single year, peritonsillar abscess, in airway obstruction due to tonsillar hyperplasia and if malignant disease is suspected which epithelial origin not accurate in childhood but lymphoma rarely affects the tonsils in childhood because of tonsillar asymmetry or unilateral tonsillar hyperplasia [6]. Complications following tonsillectomy include early complications (primary hemorrhage and respiratory compromise) and late complications include (dehydration and secondary hemorrhage), which posttonsillectomy hemorrhage occurs in approximately 2% to 3% of pediatric patients. Whereas respiratory compromise after tonsillectomy to treat obstructive sleep apnea as 6.4% of patients. Ather less common complications include atlantoaxial subluxation, mandible condyle fracture, infection and eustachian tube injury. Many studies show improvements in behavioral problems and quality of life after tonsillectomy such as improvement in eating, sleeping, temperature after days or weeks of the tonsillectomy [7, 8].

Patient and method:

The study was performed in a retrospective manner at Baquba Teaching Hospital. We selected fifty patients randomly, which age between 3 to 15 years old after six months or more of doing tonsillectomy for doing the research. All procedures were carried out in general anaesthesia after orotracheal intubation. We select the patient files randomly. Inclusion criteria were the name of the patient, gender, age, telephone number and name of doctor who did the operation to facilitate information taken from patient himself or parent patients. We collected data from the patients relatives about the condition of the patients before the operation and compare it with the consequences after the operation depending on full special questionnaire on the GBI (Glasgow Benefit Inventory) questionnaire. The Glasgow Benefit Inventory (GBI), a retrospective measure, was used to assess the long term outcome after tonsillectomy. In previous clinical studies the GBI was proved to be reliable, valid and responsive. The GBI consists of 24 core retrospective questions and is answered on a 5-point Likert scale, which indicates the amount of change due to a surgical intervention ("Since your operation, do you feel better or worse about yourself" much worse, a little or somewhat worse, no change, a little or somewhat better, much better). The GBI can be used at any stage and measures the HRQOL the person experiences and how health problems affect this. The GBI is sensitive to a change in health status brought about by tonsillectomy (The Glasgow Health Status Manual). The questionnaire

is divided into a total score and 3 subscales: a general health subscale (Questions:1, 2, 3, 4, 5, 6, 9, 10, 14, 16, 17 and 18), a social support subscale (Questions 7, 11, 15), and a physical health subscale (Questions: 8, 12, 13).The GBI scores were scaled in standard fashion to range from – 100 to 100, with positive scores implying an improvement in HRQOL due to tonsillectomy, and negative scores implying a decrease in HRQOL after surgery. A visual analogue scale (0 to 10) was given to measure the patient's general feeling related to their tonsil disease. In addition to the GBI we appended five questions about special problems after tonsillectomy.

Statistical Analysis

In this study, the Statistical Analysis System- SAS (2018) program was used to detect the effect of difference factors in study parameters. T-test was used to significant compare between means in this study

Results:

Each question in questionnaire contain on score from 1 to 5 so that score one given to the answer with worst change in the health status and score 5 given to answer with best change in the health status.

Total score

Summation of all the responses (Qu.1-18) divided by 18 (to obtain an average response score) subtract 3 from the average response score, multiply by 50 . The results in details before and after tonsillectomy presents in Figure 1 and table 1.

General subscale score

Sum 12 of responses(Qu.1,2,3,4,5,6,9,10,14,16,17 and 18) divided by 12 ,subtract 3 from average response score ,multiply by 50 . The results in details before and after tonsillectomy presents in Figure 2 and table 2.

Social support score

Sum 3 of the responses (Qu.7,11,15) divided by 3 ,subtract 3 from the average response score ,multiple by 50 . The results in details before and after tonsillectomy presents in Figure3 and table 3.

Physical score

Sum 3 of the responses (Qu.8,12,13) divided by 3 ,subtract 3 from the average response score, multiply by 50. The results in details before and after tonsillectomy presents in Figure 4 and table 4

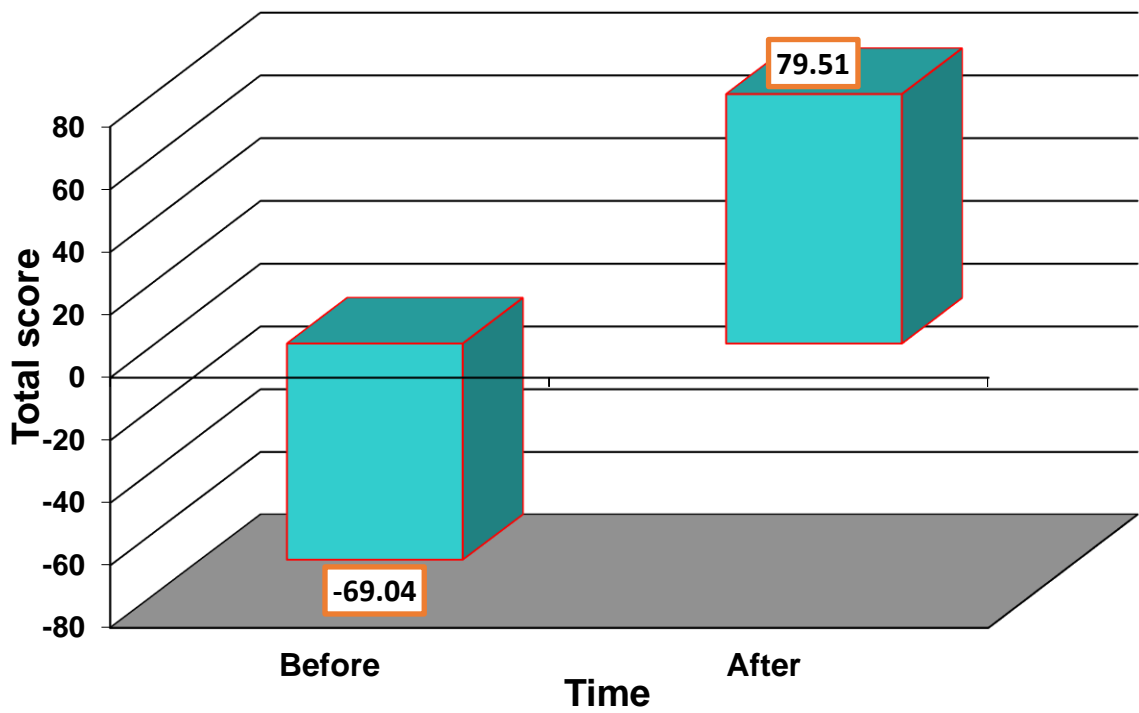


Figure 1. Shows the comparison of total score before and after tonsillectomy. P value is (0.0001)

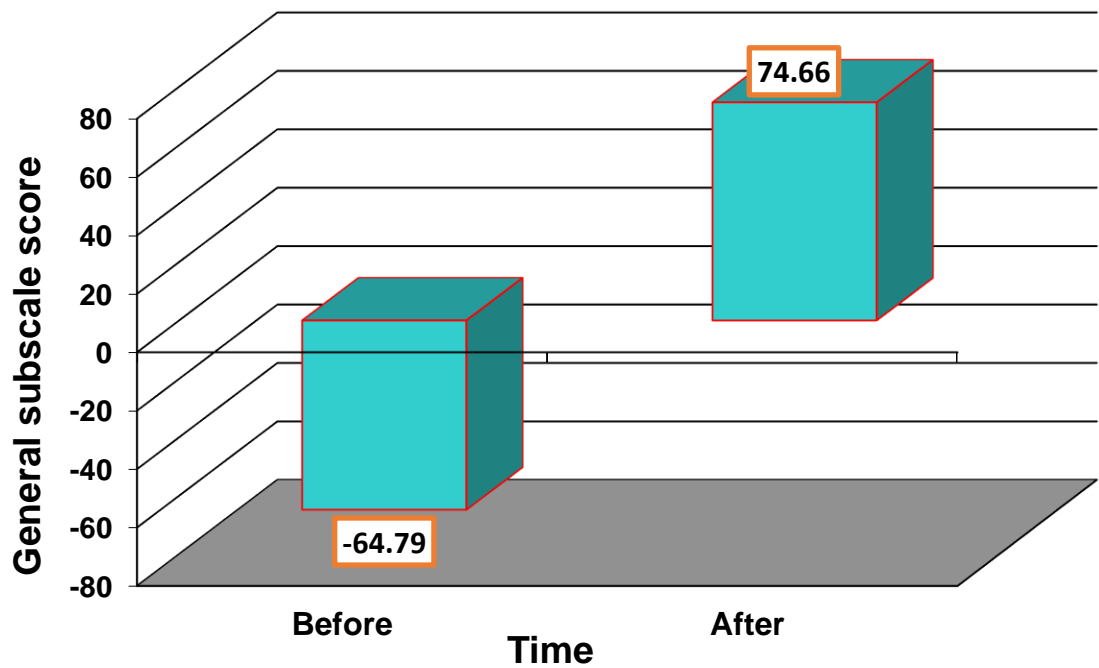


Figure 2. Shows the Comparison of General subscale score before and after tonsillectomy

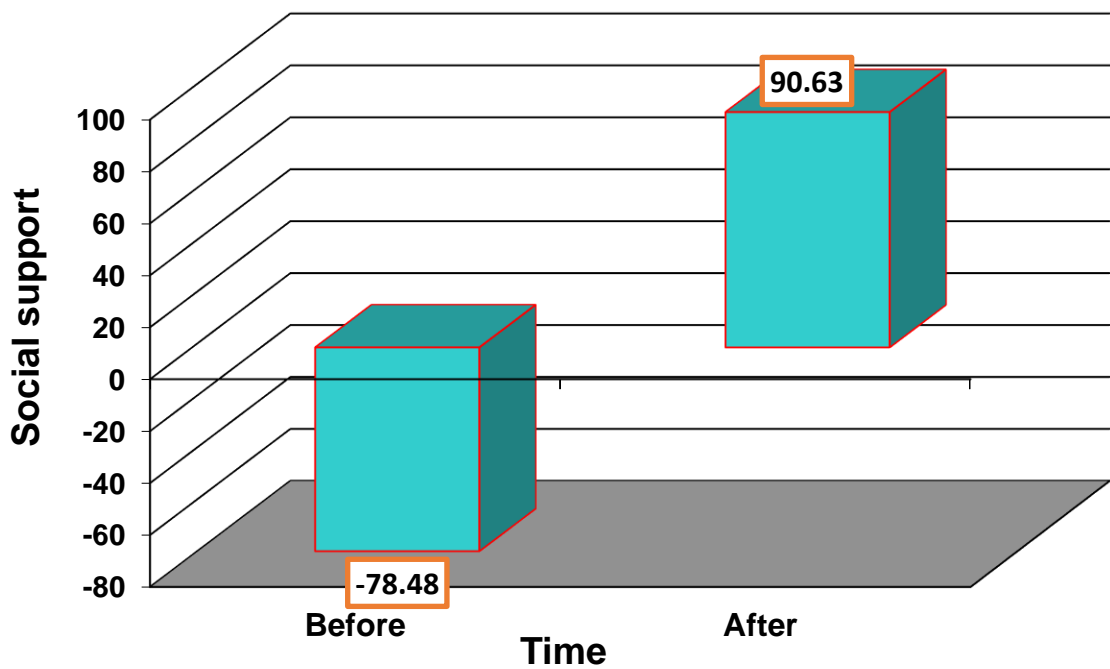


Figure 3. Shows the social support before and after tonsillecotmy

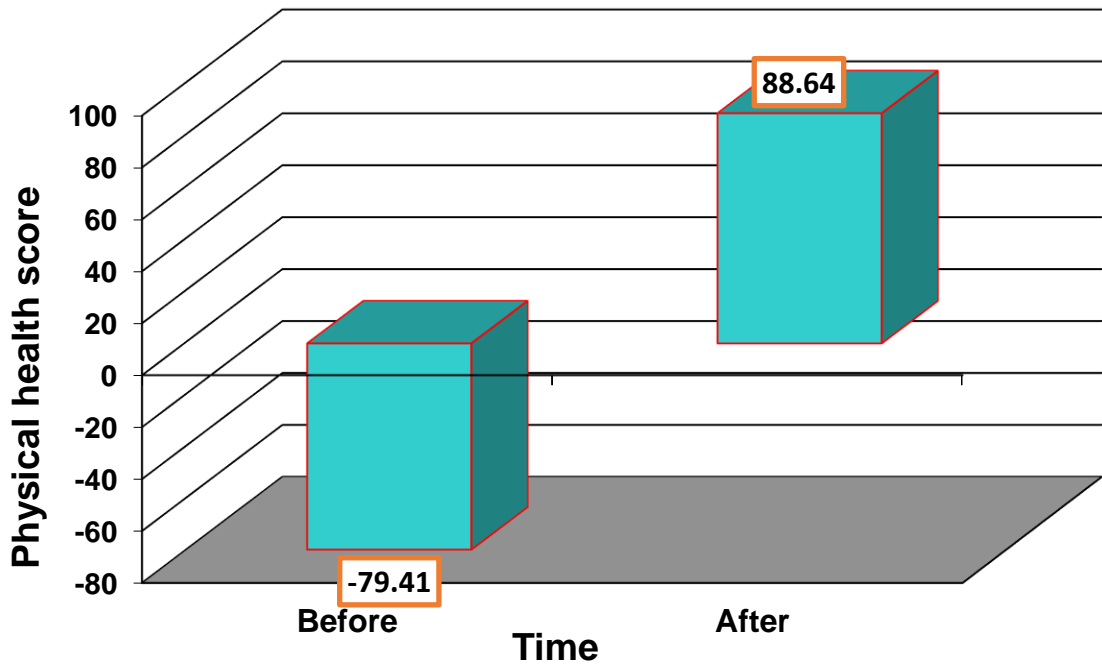


Figure 4. Shows the physical health score before and after tonsillectomy.

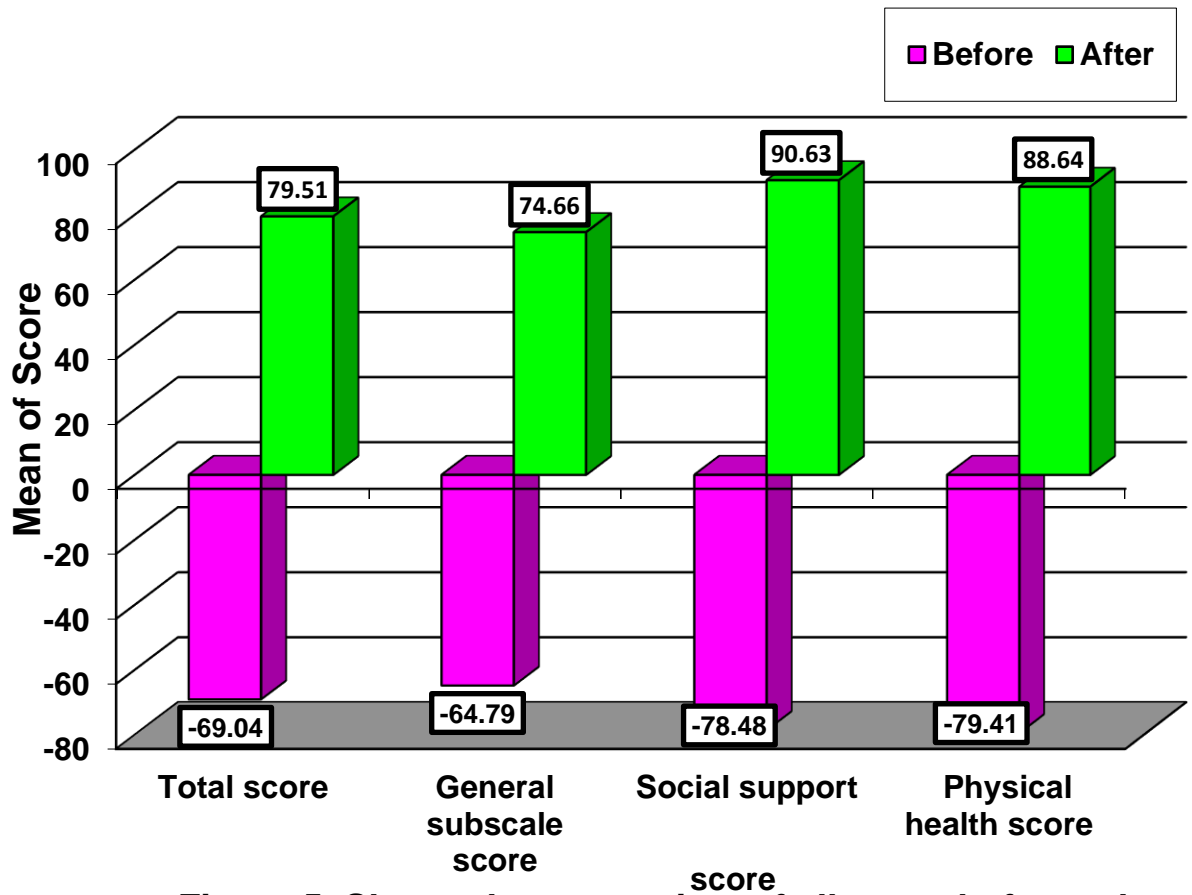


Figure 5. Shows the comparism of all score befor and after tonsillectomy

Table 1: Present the Total Score before and after tonsillectomy

Time	No	Mean \pm SD of Total score
Before	50	-69.04 \pm 17.18
After	50	79.51 \pm 15.76
T-test	---	6.545 **
P-value	---	0.0001
** (P \leq 0.01).		

Table 2: General subscale score before and after tonsillectomy

Time	No	Mean \pm SD of General subscale score
Before	50	-64.79 \pm 17.21
After	50	74.66 \pm 15.63
T-test	---	6.526 **
P-value	---	0.0001
** (P \leq 0.01).		

Table 3: Presents Social Support Score before and after tonsillectomy

Time	No	Mean \pm SD of Social support
Before	50	-78.48 \pm 18.44
After	50	90.63 \pm 17.25
T-test	---	7.088 **
P-value	---	0.0001
** (P \leq 0.01).		

Table 4: Presents the Physical Health Score before and after tonsillectomy

Time	No	Mean \pm SD of Physical health score
Before	50	-79.41 \pm 20.88
After	50	88.64 \pm 19.18
T-test	---	7.959 **
P-value	---	0.0001
** (P \leq 0.01).		

Discussion :

Tonsillectomy with or without adenoidectomy is considered the most commonest surgical procedure performed now days [1,2]. In the paediatric patient population, it is the most commonly done procedure [3]. In contrast to paediatric tonsillectomy, which has clear criteria for surgery, there is continuous debate over adult tonsillectomy indications, particularly in individuals with chronic tonsillitis[9]. Suspicion of malignant disease, recurrent acute tonsillitis are all indications for tonsillectomy in adults[10].

There is a few researches with a small number of patients have been conducted until now [7]. Our investigation involved a significant number of patients. We asked Fifty patients who had surgery at Baquba Teaching Hospital in the previous six months to fill out our survey. With a range of 3 to 15 years . To assess the effects of tonsillectomy on health, we employed the Glasgow Benefit Inventory (GBI), a postintervention questionnaire. The GBI was created specifically to track patients' health changes following otolaryngological procedures [8]. The questionnaire has been thoroughly researched and validated. The GBI is a sensitive tool for assessing changes in patient health following surgical operations, particularly otolaryngological procedures. We conducted a retrospective assessment to offer information that was different from serial change data, being more sensitive and accurately associated with patients' satisfaction, according to Fischer et al. Following that, we noticed a significant improvement in all GBI values[9, 10].

In this study we discovered a big differences in total score, general subscale score, social support and the physical health scores before and after tonsillectomy which indicate This shows the useful effect on patients with persistent tonsillitis. The advantage is more unmistakable within the common subscale and the physical health subscale than within the social back sub scale. This result bolsters the theory that tonsillectomy has an affect not as it were on the physical but too on mental wellbeing of patients enduring from inveterate tonsillitis. The combination of these two discoveries causes an advancement in wellbeing scale. In differentiate to their work we utilized approved and well considered instrument. Our discoveries prove the comes about of Stanley et al. who appeared by a five address meet of 60 patients that patients who have repetitive throat diseases early tonsillectomy can make strides post-interventional fulfillment, wellbeing and utilization of therapeutic assets. [11]

Conclusion

The selected patients in this study who perform tonsillectomy with or without adenoidectomy with a hot procedure or cord steel tonsillectomy show improve their health significantly. The long or short term results of those patients can be obtain with satisfaction which motivate Otolaryngologists to be conversant with tonsillectomy.

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اوصي باستلام وقبول بحث التخرج للطالب موسى حمزة حمدان بعد
اكماله متطلبات البحث كاملة ودون أي نقص واكماله جميع
الاحصائيات والتعديلات المطلوبة منه

أ. د. دريد حميد عبد الكاظم