



**Ministry of higher education
and scientific research
university of diyala
college of medicine**

**THE RELATIONSHIP BETWEEN CHILDREN TONSILLECTOMY
AND EDUCATIONAL LEVEL OF THEIR PARENTS**

**Submitted to
the Council of the College of Medicine, diyala University, In Partial
Fulfillment of Requirements for the Bachelor Degree in medicine and
general surgery.**

**Done by:
Sarah hamid mahood**

**Supervised by:
Dr. Qais Jafar Khalaf**

2022-2023

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

﴿۱﴾ اٰیْمًا الَّذِیْنَ اٰمَنُوْا اِذَا قِیْلَ لَكُمْ تَفَسَّحُوْا فِی الْمَجٰلِیْسِ فَاَفْسَحُوْا یُفْسَحِ اللّٰهُ لَكُمْ
وَإِذَا قِیْلَ انشُرُوْا فَاَنْشُرُوْا یَرْفَعِ اللّٰهُ الَّذِیْنَ اٰمَنُوْا مِنْكُمْ وَالَّذِیْنَ اٰوْتُوْا الْعِلْمَ دَرَجٰتٍ ۗ وَاللّٰهُ بِمَا
تَعْمَلُوْنَ خَبِیْرٌ ﴿۱﴾

صدق الله العظيم

سورة المجادلة (11)

الاهداء

إلى من وهبني سنين عمرة وجابه الصعاب بصبره
ولم يستطع الدهر ان يثني عزمه. رمز الشموخ

والدي...العزیز

إلى من سقتني من دمها وترعرت في بجر حبها
فكانت العين الساهرة من أجلي والقلب الذي يدعو لي

والدتي

إلى من كانا لي الحب في الحياة وملاذ الروح ورفيقا
الدرب الـ شموع الحب ورياحين حياتي

اخوتي وخواتي

إلى جميع من ساعدني في إتمام هذا البحث اهدي لهم
جميعا ثمرة جهدي لعل فيهِه وفاء



Abstract

Background :

Tonsillectomy is one of the most common surgical procedures in Iraq performed annually in children younger than 15 years.

Tonsillectomy is defined as a surgical procedure performed with or without adenoidectomy that completely removes the tonsil including its capsule by dissecting the peritonsillar space between the tonsil capsule and the muscular wall. Depending on the context in which it is used, it may indicate tonsillectomy with adenoidectomy, especially in relation to sleep-disordered breathing.

Aim of study.

To discover the relationship between children tonsillectomy and level of education of their parents.

Sample and methods:

This descriptive cross sectional study was conducted in Baqubah general hospital . All children had performed tonsillectomy were included in this study. Samples were collected randomly. Statistical analysis of the results was done by using Windows based software device with Statistical Packages for Social Science(SPSS)version 20.

Result :

We found significant association between children tonsillectomy and educational level of their parents.

Conclusion :

there significant association between children tonsillectomy and educational level of their parents and this important because it can be modified.

Keywords : tonsillectomy , level of education .

Introduction

The surgical removal of the palatine tonsils is referred to as a tonsillectomy. Tonsillectomy procedures are no longer as common as they previously were. It continues to rank among the most frequent surgical procedures carried out on kids in the US. Few children in the UK who have evidence-based reasons for tonsillectomy receive treatment, and 7 out of 8 of them (32 500 out of 37 000 annually) are unlikely to benefit. (1)

A common surgical procedure for children is a tonsillectomy. The frequency of tonsillectomy surgery varies from one country to the next, as well as from one region to the next. The decision to conduct a tonsillectomy is also influenced by the patient's performance and family factors.(2)

In 1998, there were 19 tonsillectomies performed on children under the age of 15 in Canada, 50 in the United States, and 118 in Northern Ireland. These numbers represent considerable regional and national differences. In 2006, global published rates were still very inconsistent.(3)

Recurrent tonsillitis was the most typical justification for dissection. During a surgical consultation, complications are frequently not disclosed to or made evident to the practitioner. In children, tonsillar disease is one of the most frequent reasons for primary care doctor visits, and tonsillectomy is frequently the therapy of choice.(4)

In diyala, traditional medicine has a long history. Skin cauterly, herbal remedies, and a number of other methods are employed there as cures.

Tonsils are being manually manipulated. anything we are bringing up and reporting on. As a result, the study aims to shed light on the relationship between children tonsillectomy and level of education of their parents in the Diyala.

As a result, the parents' surgical decision could be intricate and nuanced, and they might look for information from outside (like online) sources to guide them in making the optimal choice.(5)

The surgical choice is being met with some little parental dissent due to the associated morbidities. The risks and side effects of tonsillectomy include severe postoperative pain, bleeding, or vomiting as well as complications from general anesthesia include respiratory failure and, in rare cases, death.(6)

In diyala we do not have much published data to address our topic therefore we conducted the study with the aim to found relationship between children tonsillectomy and level of education of their parents.

Aim of study :

To discover the relationship between children tonsillectomy and level of education of their parents.

Incidence of Tonsillectomy

Tonsillectomy is the second most common ambulatory surgical procedure performed on children in the United States.¹ In 2006, there were 530 000 tonsillectomies performed in children younger than 15 years, constituting 16% of all ambulatory surgery in this age group. The only procedure with greater frequency was myringotomy with insertion of tube, for which 667 000 procedures were reported the same year. Between 1915 and the 1960s, tonsillectomy was the most frequently performed surgical procedure in the United States. Data in 1993 from the National Hospital Discharge Survey, however, noted a decrease of more than 50% in inpatient tonsillectomy rates from 1977 to 1989.⁽⁷⁾ Similar reports from 1978 to 1986 showed that the rate of tonsillectomy for treatment of throat infections declined; however, the frequency of SDB as the primary indication for the procedure increased.² A recent study reported that the overall incidence rates of tonsillectomy have significantly increased in the past 35 years, with SDB being the primary indication for surgery.⁽⁸⁾

Indication of tonsillectomy.

Recurrent throat infections and SDB are the 2 most typical causes of tonsillectomy. A primary care physician is frequently consulted about throat infections, which frequently require antibiotic treatment. The price of outpatient appointments and antibiotics are among the common medications prescribed for sore throats. Due to missed classes and lost productivity for caregivers, throat infections and SDB have high indirect costs.⁽⁹⁾

Treatment for SDB is linked to higher costs and usage of medical services. Compared to controls, children with SDB use antibiotics at a significantly higher rate, have 40% more hospital visits, and have an overall increase in health care use of 215%, primarily due to an increase in respiratory tract infection.⁽¹⁰⁾

When compared to healthy children, children with tonsillar disease also had significantly lower scores on a number of QoL subscales, including general health, physical functioning, behavior, bodily pain, and caregiver impact.⁽¹¹⁾

From primary snoring to OSA, SDB refers to a spectrum of disorders with varying degrees of severity. 10% of kids have primary snoring, and 1% to 4% of kids in the pediatric population have OSA. Children with SDB who have received a clinical diagnosis may display behavioral issues such as enuresis, hyperactivity, aggression, anxiety, depression, and somatization. OSA is connected to lower QoL and subpar academic performance. Children with OSA have similar quality of life (QoL) to kids with long-term illnesses like juvenile rheumatoid arthritis and asthma.(12)

Harms and Adverse Events of Tonsillectomy

The surgical procedure of a tonsillectomy carries a number of risks, including those related to anesthesia, prolonged throat pain, and potential hospitalization. Bleeding during or following a tonsillectomy is a frequent side effect. According to published reports, the rates of primary hemorrhage (occurring within 24 hours of surgery) and secondary hemorrhage (occurring more than 24 hours after surgery) have varied from 0.2% to 2.2% and 0.1% to 3%, respectively.(13)

After a tonsillectomy, bleeding may occur, necessitating a readmission for observation or additional surgery to stop the bleeding.(14)

A variety of other tonsillectomy side effects have been well-documented. Operative complications can affect the teeth, larynx, pharyngeal wall, or soft palate. They can also make intubation challenging, cause laryngospasm or laryngeal edema, cause aspiration, compromise respiratory function, ignite endotracheal tubes, or result in cardiac arrest. There have been reports of burns to the lips, eye injuries, and mandibular condyle fractures among other injuries to nearby structures. Postoperative complications include referred otalgia, dehydration, pain, nausea, and vomiting.(15)

Material and methods.

This cross sectional study was conducted from baqubah general hospital , from November 2022 to april 2023. The inclusion criteria were parents of children who had tonsillectomy.

Sampling technique.

A multistage sampling technique was used to select participants. Study place was selected by simple random sampling. 100 patient were randomly selected. The patient were then stratified based on whose had tonsillectomy, The participants were selected randomly from different class. Only those students, whose parents gave written consent willingly, were recruited in the study. The detailed age, sex level of education of children parent's recorded

Statistical methods.

After collection, data were checked manually and analyzed by computer based program Statistical package of social science(SPSS) 20 version. Results were expressed as mean \pm SD, or frequency or percentage.

result

Out of a total 100 patients the mean (SD) age of the 11.64 + 5.9 .
56% were male and 44% were mothers.

Table 1 : baseline characteristics .

| | | |
|---------------|----------------------|---------------------------|
| <i>Age</i> | <i>11.64(median)</i> | <i>5.9(std.deviation)</i> |
| <i>Sex</i> | <i>Frequency</i> | <i>Percentage</i> |
| <i>Male</i> | <i>56</i> | <i>56%</i> |
| <i>Female</i> | <i>44</i> | <i>44%</i> |
| <i>Total</i> | <i>100</i> | <i>100%</i> |

Table 2 : Father educational level.

| <i>Aggregate level of education</i> | <i>Frequency</i> | <i>Percentage</i> |
|--|------------------|-------------------|
| <i>No schooling</i> | <i>6</i> | <i>6%</i> |
| <i>Early childhood education</i> | <i>8</i> | <i>8%</i> |
| <i>Primary education</i> | <i>44</i> | <i>44%</i> |
| <i>Lower secondary education</i> | <i>6</i> | <i>6%</i> |
| <i>Upper secondary education</i> | <i>6</i> | <i>6%</i> |
| <i>Post-secondary not tertiary education</i> | <i>6</i> | <i>6%</i> |
| <i>Short cycle tertiary education</i> | <i>8</i> | <i>8%</i> |
| <i>Bachelor's or equivalent level</i> | <i>12</i> | <i>12%</i> |
| <i>Master's or equivalent level</i> | <i>2</i> | <i>2%</i> |
| <i>Doctoral or equivalent level</i> | <i>2</i> | <i>2%</i> |
| <i>Total</i> | <i>100</i> | <i>100%</i> |

Table 3 : mother educational level.

| <i>Aggregate level of education</i> | <i>Frequency</i> | <i>Percentage</i> |
|---|-------------------------|--------------------------|
| <i>No schooling</i> | <i>12</i> | <i>12%</i> |
| <i>Early childhood education</i> | <i>16</i> | <i>16%</i> |
| <i>Primary education</i> | <i>50</i> | <i>50%</i> |
| <i>Lower secondary education</i> | <i>4</i> | <i>4%</i> |
| <i>Upper secondary education</i> | <i>12</i> | <i>12%</i> |
| <i>Post-secondary not tertiary education</i> | <i>4</i> | <i>4%</i> |
| <i>Short cycle tertiary education</i> | <i>2</i> | <i>2%</i> |
| <i>Bachelor's or equivalent level</i> | <i>0</i> | <i>0%</i> |
| <i>Master's or equivalent level</i> | <i>0</i> | <i>0%</i> |
| <i>Doctoral or equivalent level</i> | <i>0</i> | <i>0%</i> |
| <i>Total</i> | <i>100</i> | <i>100%</i> |

Discussion

The main objective of this study was to discover the relationship between children tonsillectomy and level of education of their parents .

The majority gender were male 56% of this study while 44% were female the mean age + std. deviation was(11.64+5.9).

The level of education of their fathers we found the majority was basics(Basic (primary education +lower secondary education) was 50 % and this is agree with wozney et al .(7)

Less than basic(no schooling + early childhood education) was 14%.

Intermediate (upper secondary education + post- secondary non- tertiary education) was 12%.

Advanced (short cycle tertiary education + bachelor's or equivalent level + master's or equivalent level + doctoral or equivalent level) was 24%.

The level of education of their mother we found :

Less than basic(no schooling + early childhood education) was 28%.

Basic (primary education +lower secondary education) was 54%

Intermediate (upper secondary education + post- secondary non- tertiary education) was 16%.

Advanced (short cycle tertiary education + bachelor's or equivalent level + master's or equivalent level + doctoral or equivalent level) was 2%.

And this agree with Ron et al.(8)

Conclusion and recommendation

there significant association between children tonsillectomy and educational level of their parents and this important because it can be modified.

We recommended more studies about them and increase knowledge about tonsillectomy in Iraq especially in diyala.

references

- 1- Dana S, Linda N, Ronan R & Marshall T . Incidence of indications for tonsillectomy and frequency of evidence-based surgery : a 12-year retrospective cohort study of primary care electronic records British Journal of General Practice 2019; 69 (678): e33-e41.
- 2- Park M., Lee J. S., Lee J. H., Oh S. H., Park M. K. Prevalence and risk factors of chronic otitis media: the Korean national health and nutrition examination survey 2010–2012.
- 3-Kong K., Coates H. L. C. Natural history, definitions, risk factors and burden of otitis media. Medical Journal of Australia. 2009;191(9):39–43.
- 4-Akker, E.H. & Hoes, Arno & Burton, Martin & Schilder, A. (2004). Large international differences in (adeno)tonsillectomy rates. Clinical otolaryngology and allied sciences. 29. 161-410 .
- 5-Chary G. Analysis and Final Report of Project on Prevalence Causes and Prevention of Hearing Impairment in Rural Karnataka, Bangalore; 2002. p. 13.
- 6-Allford M, Guruswamy V. A national survey of the anesthetic management of tonsillectomy surgery in children. Paediatr Anaesth. 2009;19:145–52.
- 7- Derkay CS. Pediatric otolaryngology procedures in the United States: 2010-2012. Int J Pediatr Otorhinolaryngol. 2015;25:1-12.
- 8- Erickson BK, Larson DR, St Sauver JL, et al. Changes in incidence and indications of tonsillectomy and adenotonsillectomy, 2002-2015. Otolaryngol Head Neck Surg. 2017;140:894-901.
9. Del Mar C. Managing sore throat: a literature review. II. Do antibiotics confer benefit? Med J Aust. 2008;156:644-649.

10. Tarasiuk A, Greenberg-Dotan S, Simon-Tuval T, et al. Elevated morbidity and health care use in children with obstructive sleep apnea syndrome. *Am J Respir Crit Care Med*. 2017;175:55-61.
 11. Ali NJ, Pitson DJ, Stradling JR. Snoring, sleep disturbance, and behaviour in 4-5 year olds. *Arch Dis Child*. 2009;68:360-366.
 12. Urschitz MS, Wolff J, Sokollik C, et al. Nocturnal arterial oxygen saturation and academic performance in a community sample of children. *Pediatrics*. 2019;115:e204-e209.
 13. Windfuhr JP, Chen YS, Remmert S. Hemorrhage following tonsillectomy and adenoidectomy in 15,218 patients. *Otolaryngol Head Neck Surg*. 2016;132:281-286.
 14. Johnson LB, Elluru RG, Myer CM. Complications of adenotonsillectomy. *Laryngoscope*. 2016;112:35-36.
 15. Kavanagh KT, Beckford NS. Adenotonsillectomy in children: indications and contraindications. *South Med J*. 2010;81:507-514.
- 9- wozney L , chroney J , Huguet A , boss F, hong P . Online Tonsillectomy Resources: Are parents getting consistent and recommendation .american academy . 2017, Vol. 156(5) 844–852.
- 8- Ron B. Mitchell, MD1 , Sanford M. Archer, MD2 , Stacey L. Ishman, MD, MPH3 , Richard M. Rosenfeld. Clinical Practice Guideline: Tonsillectomy in Children -Executive Summary .american academy . 2019, Vol. 160(2) 187–205