

Adult Tonsillectomy: Indications and Outcome.

*Nimkur L. T, **Adoga A. A.

*Department of ORL, H&N Surgery University of Jos Teaching Hospital/ENT Unit BHUTH Jos.

**Department of ORL, H&N Surgery University of Jos Teaching Hospital.

Corresponding Author: Nimkur L. T

Abstract: **Introduction**=Tonsillectomy is the removal of the tonsils. Procedure is done in both children and adults. Indications for tonsillectomy in adults include-chronic recurrent tonsillitis, benign tumours/cysts of the tonsils, malignancy, snoring/sleep apnoea symptoms due to tonsillar enlargement. Tonsillectomy can therefore relieve the symptoms related with these indications. **Method**= A five year retrospective study in a tertiary institution involving seventy patients, with histological diagnosis as an inclusion criteria. **Results** =Seventy patients evaluated, twenty eight males and forty two females, thus male-female ratio of 1:1.5. age range of 18-50 years; unilateral enlargement=12; bilateral enlargement=58,benign cases=62,malignant cases=08.Histologically-benign are Lymphoid hyperplasia; malignant are Squamous cell carcinoma and Non-Hodgkin lymphoma. **Conclusion:** Adult tonsillectomy is relevant as it reliefs symptoms of chronic tonsillitis, OSA, improves the general Life quality of the patient and could diagnosed a malignancy of the tonsil.

Keywords: Adult tonsillectomy; Indications; Outcome.

Date of Submission: 20-06-2019

Date of acceptance: 04-07-2019

I. Introduction:

Tonsillectomy is the surgical removal of the tonsils (palatine tonsils). This procedure is usually performed in children but can equally be performed in adults.

The indications for tonsillectomy in adults include the following:--Chronic recurrent tonsillitis; Tonsillar foreign body; Benign tumours or cysts of the tonsil; Malignancy; Snoring/Sleep apnoea syndrome--due to enlarged tonsils. Chronic recurrent tonsillitis is however the commonest indication for tonsillectomy in our environment for adults and many studies done elsewhere in the world ^{5, 11, 13}. Tonsillectomy alone has been found to be effective in the treatment of adult obstructive sleep apnoea ¹. It has been alleged that in rare cases, a substantial tonsillar hypertrophy alone can be responsible for OSA in adults. Tonsillectomy therefore can offer a simple and promising surgical therapeutic solution for patients who manifest significant symptoms of OSA ^{4, 7, 18}. Tonsillectomy has been the reason for chronic recurrent tonsillitis and unilateral tonsillar enlargement with or without cervical lymph node enlargement in our environment in adults. Tonsillectomy for recurrent acute tonsillitis is clinically effective and cost-effective ^{6, 9, 10, 11} (i.e. medical costs, social benefits and work-related costs). Also noted is the improvement in the quality of Life, thus conferring secondary health economic benefit from less GP attendances and fewer missed work-days ^{8, 12, 13, 14, 15, 17, 18}.

Method:

This is a retrospective study over a five year period (January 2013 –December 2017) in a tertiary institution in Jos Nigeria. The aim of this study is to put on record indications and outcome of Adult Tonsillectomy in our environment as this has not been commonly recorded in literature in our environment. This will help clinicians in the management of Adults with disease conditions affecting the Tonsils. The medical records of all the adult patients that had tonsillectomy within the five year period were evaluated for indications and outcome (Histology report –Benign, Malignant); Age; Gender; Bilateral/Unilateral. Only cases with Histological Reports were included in the study. A total of seventy (70) cases were evaluated and the results Analyzed and tabulated as below.

II. Results

Table 1 - Age Distribution

Age	No.	%
18-20	12	17.14
21-25	09	12.86
26-30	15	21.43
31-35	10	14.29
36-40	09	12.86
41-45	08	11.42
46-50	07	10.00
Total	70	100

Table 2 - Indications

Indications	Frequency	%
Chronic/Recurrent Tonsillitis	48	68.57
Snoring/Sleep Apnoea	10	14.29
Unilateral Tonsillar Enlargement R/O Malignancy	12	17.14

Table 3 - Outcome Distribution

	Frequency.	%				
Male	28	40				
Female	42	60				
Male : Female (M:F) = 1:1.5						
Benign	62	88.57				
Malignant	08	11.43				
	Frequency.	%	Benign		Malign	
Unilateral	12	17.14	6	50%	6	50%
Bilateral	58	82.86	56	96.55%	2	3.45%

Table 4 - Histological Type

	Type	Frequency.	Male		Female			
Benign	Lymphoid Hyperplasia	62	23	37.1%	39	62.9%		
Malignant	Non-Hodgkin lymphoma,	3	2	Total	%	1	Total	%
				5	62.5		3	37.5
	Squamous Cell Carcinoma	5	3			2		

The results of the analyzed data involved a total number of seventy patients that met the criteria for the study. Table 1 shows the age distribution of the patients with the age range between 18 and 50 years, with the highest incidence of- 15 (21.43%) age range 21-26, followed by- 12 (17.14%) ages 18-20, others are as indicated in table 1.

Indications for the surgery are as tabulated in Table 2. Chronic/ Recurrent Tonsillitis is found to responsible for- 48 (68.57%) of the indications in this study, Unilateral Tonsillar Enlargement R/O Malignancy- 12 (17.14%) and then Snoring/Sleep Apnoeic Symptoms- 10 (14.29%). Table 3 shows there are 28 males (40%) and 42 females (60%) giving a male –female ratio of 1:1.5(M:F=1:1.5). Benign conditions accounted for -62 (88.57%) while Malignant conditions accounted for-08(11.43%); of the total number Of patients evaluated, 12 (17.14%) had unilateral disease out of which 6 (50%) are benign while 6(50%) are malignant and 58 (82.86%) had bilateral disease, out of which 56 (96.55%) are benign, while 2 (3.45%) are malignant.

Table 4 shows - Histologically, two types seen in this study- Benign due to Lymphoid Hyperplasia 62 (88.57%) made up of 23 (37.1%) males and 39 (62.9%) females; and Malignant 08 (11.43%) but has two types- Non-Hodgkin Lymphoma-3 (2-males and 1-female) 37.5%, and then Squamous Cell Carcinoma-5 (3-males and 2-females) 62.5%. Total number of males with malignancy -5 (62,5%) and the total number of females with malignancy -3 (37.5%).

III. Discussion:

From the analysis of results in this study, the highest incidence occurred in the age range of 26-30 years with 15 patients(21.43%), followed by 18-20 years 12 patients(17.14%)and 31-35 years10patients(14.29%). The

lowest number occurs within the age range of 46-50years 07 patients (10%)-Table -1. From the indications as documented in the case notes of the patients considered, symptoms that finally resulted in surgery have been on since childhood in most of the patients. With increased awareness within the years of the study, more of the young adults are presenting for examination and surgery thus the likely reason for the above findings.

The most common indication for Tonsillectomy in adults in this study is Chronic/Recurrent Tonsillitis 48 patients (68.57%) Table- 2, which usually would have been on since childhood, but due to either ignorance on the part of the parents or fear of the surgical procedure. However a hand full of the patients had recurrent episodes as adults before the surgery. Unilateral Tonsillar Enlargement has 12 patients (17.14%), this is important because most lateral Oropharyngeal tumours occur in the Tonsils and are most likely malignant ².

Snoring/Sleep Apnoea Symptoms accounted for 10 patients (14.29%). Findings from this study shows that most of the patients' symptoms were resolved with Tonsillectomy, thou we did not do sleep studies on them. The finding is similar to that of the effect of Tonsillectomy Alone in Adult OSA by Andrew J Senchak, et al and other studies ^{1, 4,7,16,18}.

Outcome distribution in Table-3 Shows 28-males (40%) and 42-females (60%), and thus a male: female ratio of 1:1.5(M: F=1:1.5). Benign tonsillar cases were 62 (88.57%), while malignant cases were 08 (11.43%).The bilateral cases were 58 (82.86%) and the unilateral cases were 12 (17.14%). This shows most of the patients had problems with recurrence and may be disturbance during sleep/lack of concentration during the day. The unilateral cases presented for fear of malignancy in most cases after being aware of the likely hood of it being malignant or of a malignant transformation.

Histologically Table-4, lymphoid hyperplasia (Benign) accounts for 62 (88.57%), out of which there are 23(37.1%) males and 39 (62.9%) females while malignant cases account for 08 (11.43%) and has two forms-i-Non -Hodgkin Lymphoma -3 (37.5%) ,2-males and 1-female; Squamous Cell Carcinoma-5 (62.5%),3-males and 2-females. It is also noted that (Table-3) out of the 12- unilateral tonsillar enlargement, 6(50%) are malignant and 6(50%) are benign; while out of the 58- bilateral tonsillar enlargement (22-males and 36-females), 56(96.55%) are benign and 2(3.45%) are malignant. The saying that all unilateral tonsillar enlargements in adults are malignant until proven otherwise does not mean bilateral tonsillar enlargement in adults cannot be malignant at all.

Findings reveal that most symptoms presented before surgery were improved after follow-up visits. This is in conformity with studies done in other parts of the world as captured in the literature search above. these findings include- relief of symptoms ; medical costs and work-related costs=Economic costs effectiveness; general improvement in the quality of life of the patients, ie secondary health economic benefit from less visits to the GP and fewer missed work-days ^{8, 12, 13, 14, 15, 17, 18} .

IV. Conclusion:

Adult tonsillectomy is necessary/ important because it reliefs symptoms of chronic tonsillitis, snoring /sleep apnoea and most importantly it could be a result of malignancy and thus needs a biopsy and diagnosis for proper management. It is also known to be medically and economically effective, and generally improve the quality of life of the patients.

Competing interest.

None.

Authors Contributions:

NLT collected data, analyzed data, carried out literature search and prepared the manuscript, while AAA carried out literature search and proofread the manuscript.

References.

- [1]. Andrew J. Senchak et al. Otolaryngology, Head & Neck Surgery 2015. Vol. 152 (5) 969-973. The Effect of Tonsillectomy Alone in Adult Obstructive Sleep Apnea.
- [2]. Stell and Maran's, Head and Neck Surgery. Chapter 16, Tumours of the Oropharynx (319-334) (esp.-321).
- [3]. Elizabeth Hoddesson MD, Christine G. Gourin MD. Otolaryngology-Head and Neck Surgery. Vol. 140, Issue 1, Jan. 2009 pp 19-22. Adult Tonsillectomy: Current indications and Outcomes.
- [4]. The Laryngoscope, Vol. 110. Issue 9 Sept, 2000. Pp 1556-1559. Tonsillectomy as a Treatment of Obstructive Sleep Apnea in Adults with Tonsillar Hypertrophy.
- [5]. Prit Kasenomm, Andres Piirsoo, Mart Kull Jr and Marika Mikelsaar.BMC Ear, Nose and Throat Disorders. 13 Sept 2005 5-7. A selection of Indicators for tonsillectomy in Adults with recurrent tonsillitis.
- [6]. Keji Fujihara MD, Peter. J. Koltai MD, Masaki Hayshi MD. Annals of Otolaryngology, Rhinology & Laryngology. Vol. 115, Issue5, 2006. Cost effectiveness of Tonsillectomy for Recurrent Acute Tonsillitis.
- [7]. Thorbjorn Holmlund MD, Karl A. Franklin MD, PhD, Eva Levring Jaghagen DDS, PhD, et al. The Laryngoscope. Vol.126, Issue 12, Dec.2016. PP 2859-2862. Tonsillectomy in adults with obstructive sleep apnea.
- [8]. Iiona Schwentner, Stefan Hofer, Joachim Schmutzhard, et al. SWISS MED. WKLY. 2007, 137, 454-461. Impact of Tonsillectomy on quality of life in adults with chronic tonsillitis.
- [9]. M.R. LAING, W.S. MCKERROW. Clinical Otolaryngology. Vol. 16 Issue 1 . Feb. 1991 PP21-24. Adult Tonsillectomy.
- [10]. Neil Bhattacharyya, MD, Lynn J. RNP, Jo Shapiro, MD. Arch. Otolaryngol. Head & Neck Surg. 2001; 127 (11): 1347-1350. Efficacy and Quality -of-Life Impact of Adult Tonsillectomy.

- [11]. Alvin Pon Hsu, Kah Leong Tan, Yau Boon Tan, Hong Juan Han & Peter Kuo Sun Lu. *Acta Oto-Laryngologica*. Vol. 127, 2007 Issue 1, PP62-64. Benefits and efficacy of tonsillectomy for recurrent tonsillitis in adults.
- [12]. T. Koskenkorva, P. Kolvunan, O. P. Alho. *Clinical Otolaryngology*. Vol. 39. Issue 4. Aug. 2014. PP216-223. Predictive factors for quality of life after tonsillectomy among adults with recurrent pharyngitis: a prospective cohort study.
- [13]. Ingo Baumann, Hanka Kucheida, Gunnar Blumenstock, et al. *European Archives of Oto-Rhino-Laryngology and Head and Neck*. June 2006, Vol. 263, Issue 6, PP 556-559. Benefit from tonsillectomy in adult patients with chronic tonsillitis.
- [14]. Gotz Senka Dr Med, Halil Atay, Dr Med, Carolin Pritter Dr rer. Medic and Philipp Dost, Prof. Dr Med. *Dtsch Arztebl Int*. 2015 Dec, 112 (50) 849-855. Long-Term Results from Tonsillectomy in Adults.
- [15]. N. Andreou, S. Hadjimeou and J. Panesar. *The Journal of Laryngology & Otology*. Vol. 127, Issue 4, April 2013, PP 332-338. Does tonsillectomy improve quality of life in adults? A Systemic literature review.
- [16]. William C. Orr, PhD, Richard J. Martin, MD. *Arch. Intern. Med*. 1981, 141 (8): 990-992. Obstructive Sleep Apnea Associated With Tonsillar Hypertrophy in Adults.
- [17]. Harry R. F Powell, N. Mehta, G.W. Watters. *European Archives of Oto-Rhino-Laryngology*. Dec. 2012, Vol. 269, Issue 12 PP2581-2584. Improved quality of life in adults undergoing tonsillectomy for recurrent tonsillitis. Is adult tonsillectomy really a low priority treatment?
- [18]. Matthew M. Smith MD, Ed, Peter PhD, Kathleen L. Yaremchuk MD. *Otolaryngology-Head and Neck Surgery*, Vol. 157, Issue 2, 2017. The Role of Tonsillectomy in Adults with Tonsillar Hypertrophy and Obstructive Sleep Apnea.

Nimkur L. T" Adult Tonsillectomy: Indications and Outcome." *IOSR Journal of Research & Method in Education (IOSR-JRME)* , vol. 9, no. 3, 2019, pp. 23-26