

# A survey of tonsillectomy care patterns in Tanzania

Daudi Ntunaguzi,<sup>1</sup> Christopher Simon Mwansasu,<sup>2</sup> Aveline Aloyce Kahinga<sup>1</sup> and Zephania Saitabau Abraham<sup>3</sup>

1. Department of Otorhinolaryngology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania
2. Department of Surgery, Aga Khan University, Tanzania
3. Department of Surgery, University of Dodoma, School of Medicine and Dentistry, Tanzania

Correspondence:

Zephania Saitabau Abraham  
zsaitabau@yahoo.com

Submitted: March 2022

Accepted: May 2022

Published: August 2022

## ABSTRACT

**Introduction:** Tonsillectomy is one of the commonest surgical procedures performed worldwide and has implications for reducing morbidity for patients. There has been variability in tonsillectomy care patterns but we are unaware of any study conducted in Tanzania to survey such variable patterns. The objective of this study is to assess the current patterns of peri-operative care, techniques used and outcome of tonsillectomy by otorhinolaryngologists in Tanzania.

**Methods:** This was a descriptive cross-sectional study in which a structured 18-item questionnaire was used to obtain information on tonsillectomy care patterns. Data were analyzed using Statistical Package for Social Sciences Version 20.

**Results:** Among 26 (78.8%) of 33 otorhinolaryngologists practicing in Tanzania who responded to the questionnaire, three (11.5%) were females and 23 (88.4%) were males. Regarding intraoperatively use of steroids, eight (30.8%) otorhinolaryngologists do not use intraoperative steroids while four (15.4%) always used steroids. Twenty-four (92.3%) routinely prescribed postoperative antibiotics. Among the otorhinolaryngologists, 34.6% reported to have never performed same day tonsillectomy while 65.4% sometimes performed same day tonsillectomy.

**Conclusion:** This study has shown a similar diversity as compared elsewhere in the world of the practice of tonsillectomy care patterns, technique used and outcome among otorhinolaryngologists.

**Keywords:** Tonsillectomy care, patterns, otorhinolaryngology, Tanzania

## INTRODUCTION

Tonsillectomy is the commonest surgical procedure performed worldwide by otorhinolaryngologists. Studies have shown that patients who underwent tonsillectomy, with or without adenoidectomy, have shown significant improvement in quality of life.<sup>[1-6]</sup>

Advancement in technology and evidence from research have contributed greatly to the techniques of tonsillectomy and perioperative care. Earlier techniques such as cold steel dissection and utilization of ligature for haemostasis are being replaced by the introduction of microdebrider, coblation, laser and diathermy. These are faster and result in less bleeding. Nevertheless, there is a wide variability in practice even in developed countries.<sup>[3,7-11]</sup>

Several guidelines have been proposed in developed countries but perhaps because of differences in culture and traditions. Some centres in developing countries are not following these guidelines.<sup>[12,13]</sup>

The routine use of post-operative antibiotics has been controversial. The new guideline by the American Academy of Otorhinolaryngology and Head and Neck Surgery (AAOHN) recommends avoidance of perioperative prophylactic

**Citation:** Ntunaguzi et al. A survey of tonsillectomy care patterns in Tanzania, South Sudan Medical Journal 2022;15(3):101-104 © 2022 The Author (s) License: This is an open access article under [CC-BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) DOI: <https://dx.doi.org/10.4314/ssmj.v15i3.5>

antibiotics and promotes dexamethasone instead.<sup>[9-11]</sup> However, some surgeons believe routine post-tonsillectomy antibiotics are beneficial.<sup>[14]</sup>

Protocols for post-operative hospital length of stay varies. The commonest is for an overnight stay for monitoring for sleep apnoea and other complications.<sup>[5,9,10]</sup> Some authors recommend overnight post-operative monitoring only for special groups for example patients under two years old.<sup>[16]</sup>

**METHOD**

This was a descriptive cross-sectional study over three months. Otorhinolaryngologists registered by the Medical Council of Tanganyika and by Tanzania Ear, Nose and Throat (ENT) Society and who consented to participate were recruited. At the time the study was conducted, there were 33 otorhinolaryngologists registered by the professional board and practicing in the whole of Tanzania.

A structured 18-item questionnaire (page 10-12, online at <http://journal.entnet.org>) adopted from the Australia Society of Otorhinolaryngology, Head and Neck Surgery was e-mailed, hand delivered or sent by courier services to all participants with a letter inviting participation in the study. The questionnaire covered general demographic details and aspects of tonsillectomy practices and perioperative management. All questionnaires were returned to researchers for analysis by email, hand delivery or courier services.

Ethical approval to conduct the study was obtained from Research Ethics Committee of the Aga Khan University and adherence to the Declaration of Helsinki was ensured. Data were analysed using Statistical Package for Social Sciences (SPSS) version 20.

**RESULTS**

**Age and sex distribution of the participating otorhinolaryngologists**

Twenty-six otorhinolaryngologists were recruited (78.8% response rate). Twenty-three (88.5%) were males and three (11.5%) females. Most otorhinolaryngologists were aged 30-39 years 19(73.1%). Two (7.7%) were aged 50 years and above. (Table 1)

**Intraoperative use of steroids by otorhinolaryngologists**

Over half (53.8%) of otorhinolaryngologists occasionally used steroids intraoperatively. About one third (30.8%) never provided steroids. (Table 2)

**Postoperative use of antibiotics by otorhinolaryngologists**

**Table 1. Age and sex distribution of study participants**

Age group (years)	Female n(%)	Male n(%)	Total n(%)
30 to 39	1(5.3)	18(94.7)	19(73.1)
40 to 49	2(40.0)	3(60.0)	5(19.2)
50 and above	0(0.0)	2(100.0)	2(7.7)
<b>Total</b>	<b>3(11.5)</b>	<b>23(88.5)</b>	<b>26(100)</b>

**Table 2. Intraoperative use of steroids by otorhinolaryngologists**

Steroids intraoperatively	n(%)
Never	8(30.8)
Always	4(15.4)
Sometimes	14(53.8)
<b>Total</b>	<b>26(100)</b>

**Table 3. Postoperative use of antibiotics by otorhinolaryngologists**

Steroids intraoperatively	n(%)
Never	1(3.8)
Always	24(92.3)
Sometimes	1(3.8)
<b>Total</b>	<b>26(100)</b>

**Table 4. Frequency of performing same day tonsillectomy by otorhinolaryngologists**

How often perform same day tonsillectomy	n(%)
Never	9(34.6)
Sometime	17(65.4)
<b>Total</b>	<b>26(100)</b>

Twenty-four (92.3%) of otorhinolaryngologists routinely used postoperative antibiotics while only one (3.8%) never prescribed antibiotics after tonsillectomy. (Table 3)

**Frequency of performing same day tonsillectomy by otorhinolaryngologists**

Two thirds (65.4%) of otorhinolaryngologists reported having sometimes performed same day tonsillectomy while the remainder never performed same day tonsillectomy. (Table 4)

## DISCUSSION

The practice of tonsillectomy, without adenoidectomy, has evolved due to advanced technology and evidence-based practice.<sup>[3,7,12]</sup> The aim of this study was to survey tonsillectomy care practices by registered otorhinolaryngologists in Tanzania.

This study has found that a large number of otorhinolaryngologists do not use steroids perioperatively despite the strong evidence of reduced postoperative morbidity.<sup>[17]</sup> Many studies have shown benefit of intraoperative dexamethasone such as reduction in length of post-operative hospital stay, reduction in post-operative pain, nausea and vomiting.<sup>[11,17]</sup>

Our data have shown that a large number of otorhinolaryngologists always used antibiotics postoperatively in spite of evidence that routine use of antibiotics post-tonsillectomy has no added advantages except in selected cases.<sup>[18]</sup> However, some studies in Australian and South African show that a significant percentage of otorhinolaryngologists still routinely prescribe postoperative antibiotics.<sup>[10,12]</sup>

Some otorhinolaryngologists are shifting from “the overnight tonsillectomy” to “the same day tonsillectomy”. Our study supports this trend with 65.4% of otorhinolaryngologists reporting that they sometimes performed same day tonsillectomy. This finding appears to correlate with what has been found elsewhere with same day tonsillectomy being the commonly preferred option.<sup>[19,20]</sup>

## CONCLUSION

This study found a diversity of practice of peri-tonsillectomy care among otorhinolaryngologists in Tanzania. There is a need for agreed standardization of guidelines for peri-tonsillectomy care.

**Conflicts of interests:** None

**Sources of funding:** None

**Authors' contributions:** DN designed the study, collected data, performed data analyses and prepared this manuscript. CSM, AAK, ZSA contributed to the study design, analyses and comments to the manuscript drafts. All authors read and approved this manuscript.

## References

- Koempel JA. On the origin of tonsillectomy and the dissection method. *The Laryngoscope*. 2002 Sep;112(9):1583-6.
- Younis RT, Lazar RH. History and current practice of tonsillectomy. *The Laryngoscope*. 2002 Aug;112(S100):3-5.
- Charaklias N, Mamais C, Kumar BN. The art of tonsillectomy: the UK experience for the past 100 years. *Otolaryngology--Head and Neck Surgery*. 2011 Jun;144(6):851-4.
- Piessens P, Hens G, Lemkens N, Schrooten W, Debruyne F, Lemkens P. Effect of adenotonsillectomy on the use of respiratory medication. *International journal of pediatric otorhinolaryngology*. 2012 Jun 1;76(6):906-10.
- Leiberman A, Stiller-Timor L, Tarasiuk A, Tal A. The effect of adenotonsillectomy on children suffering from obstructive sleep apnea syndrome (OSAS): the Negev perspective. *International journal of pediatric otorhinolaryngology*. 2006 Oct 1;70(10):1675-82.
- Ramya B, Viswanatha B, Siddappa M, Mohan A. Quality of life post adenotonsillectomy in children with adenotonsillar hypertrophy: a prospective study. *Research in Otolaryngology*. 2016;5(2):32-8.
- Pynnonen M, Brinkmeier JV, Thorne MC, Chong LY, Burton MJ. Coblation versus other surgical techniques for tonsillectomy. *Cochrane database of systematic reviews*. 2017(8).
- Walijee H, Al-Hussaini A, Harris A, Owens D. What are the trends in tonsillectomy techniques in Wales? A prospective observational study of 19,195 tonsillectomies over a 10-year period. *International journal of otolaryngology*. 2015;2015.
- Krishna P, LaPage MJ, Hughes LF, Lin SY. Current practice patterns in tonsillectomy and perioperative care. *International journal of pediatric otorhinolaryngology*. 2004 Jun 1;68(6):779-84.
- MacFarlane PL, Nasser S, Coman WB, Kiss G, Harris PK, Carney AS. Tonsillectomy in Australia: an audit of surgical technique and postoperative care. *Otolaryngology—Head and Neck Surgery*. 2008 Jul;139(1):109-14.
- Mahant S, Hall M, Ishman SL, Morse R, Mittal V, Mussman GM, Gold J, Montalbano A, Srivastava R, Wilson KM, Shah SS. Association of national guidelines with tonsillectomy perioperative care and outcomes. *Pediatrics*. 2015 Jul 1;136(1):53-60.
- Meyer E, Fagan JJ. Tonsillectomy practice in South Africa. *SAMJ: South African Medical Journal*. 2011 Feb;101(2):85-.
- Patel HH, Straight CE, Lehman EB, Tanner M, Carr MM. Indications for tonsillectomy: a 10 year retrospective review. *International journal of pediatric otorhinolaryngology*. 2014 Dec 1;78(12):2151-5.

14. Colreavy MP, Nanan D, Benamer M, Donnelly M, Blaney AW, O'Dwyer TP, Cafferkey M. Antibiotic prophylaxis post-tonsillectomy: is it of benefit? *International journal of pediatric otorhinolaryngology*. 1999 Oct 15;50(1):15-22.
15. Peer S. Otorhinolaryngology-not just tonsils and grommets: Insights into the ENT scene in South Africa. *SAMJ: South African Medical Journal*. 2013 Jul;103(7):455-7.
16. Werle AH, Nicklaus PJ, Kirse DJ, Bruegger DE. A retrospective study of tonsillectomy in the under 2-year-old child: indications, perioperative management, and complications. *International journal of pediatric otorhinolaryngology*. 2003 May 1;67(5):453-60.
17. Steward DL, Grisel J, Meinzen-Derr J. Steroids for improving recovery following tonsillectomy in children. *Cochrane Database of Systematic Reviews*. 2011(8).
18. Dhiwakar M, Clement WA, Supriya M, McKerro W. Antibiotics to reduce post-tonsillectomy morbidity. *Clinical Otolaryngology*. 2013 Apr;38(2):154-5.
19. Moralee SJ. Adult tonsillectomy: what proportion would accept same day discharge? *Journal of the Royal College of Surgeons of Edinburgh*. 1998 Apr 1;43(2):99-100.
20. Mitchell RB, Kenyon GS. Adult tonsillectomy: what proportion would accept same day discharge?. *Journal of the Royal College of Surgeons of Edinburgh*. 1998 Dec 1;43(6):429-30.