

RESEARCH

## Characteristics of Chronic Tonsillitis Patients Undergoing Tonsillectomy at Ngoerah Hospital, Denpasar (January 2023 – December 2024)

### ABSTRACT

**Background:** Chronic tonsillitis remains a common health problem in otorhinolaryngology practice, and tonsillectomy is frequently performed as definitive management. Data describing patient characteristics undergoing tonsillectomy are essential for clinical evaluation and future research. **Purpose:** To describe the characteristics of patients with chronic tonsillitis who underwent tonsillectomy at Ngoerah Hospital, Denpasar. **Method:** A descriptive retrospective study was conducted using secondary data from medical records of patients diagnosed with chronic tonsillitis who underwent tonsillectomy at Ngoerah Hospital between January 2023 and December 2024. Variables analyzed included age, sex, chief complaint, indication for tonsillectomy, and tonsil size. The data were analyzed descriptively and presented in both tabular and narrative forms. **Result:** A total of 58 patients were included. The most common age group was 12–25 years (41%). Male patients predominated (55%). The main chief complaint was recurrent sore throat or odynophagia (93%). Relative indications for tonsillectomy were found in 73% of patients, with primary recurrent tonsillitis, three or more episodes per year, while 27% had absolute indications. The most frequent tonsil size was grade T3 (76%). **Conclusion:** Patients with chronic tonsillitis undergoing tonsillectomy at Ngoerah Hospital were predominantly adolescents and young adults, male, presenting with recurrent sore throat, relative indications for surgery, and grade T3 tonsillar hypertrophy

**Keywords:** Tracheostomy, chronic tonsillitis, tonsillectomy, patient characteristics, tonsil size.

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## INTRODUCTION

The palatine tonsils are part of Waldeyer's ring and play an important role in immune defense of the upper respiratory tract.<sup>1,2</sup> Tonsillitis may be caused by viral or bacterial infection and can present as acute or chronic inflammation. Recurrent or inadequately treated acute tonsillitis may progress to chronic tonsillitis, characterized by persistent or recurrent sore throat, odynophagia, halitosis, and tonsillar hypertrophy.<sup>2,3</sup>

Chronic tonsillitis remains one of the most common conditions encountered in otorhinolaryngology practice, particularly in developing countries.<sup>4</sup> In Indonesia, tonsillitis represents a significant proportion of ENT outpatient visits and surgical procedures.<sup>5,6</sup> Tonsillectomy is considered a safe and effective definitive treatment when conservative therapy fails or when absolute or relative indications are present.<sup>7,8</sup>

Despite the high frequency of tonsillectomy, national data describing demographic and clinical characteristics of patients undergoing the procedure remain limited. Characterization of these patients is essential for evaluating disease patterns, surgical indications, and clinical outcomes.<sup>6-8</sup> Therefore, this study aimed to describe the characteristics of patients with chronic tonsillitis who underwent tonsillectomy at Ngoerah Hospital, Denpasar, from January 2023 to December 2024.

## METHOD

A descriptive retrospective study was conducted using secondary data from medical records. The study population consisted of patients diagnosed with chronic tonsillitis who underwent tonsillectomy at the Otorhinolaryngology–Head and Neck Surgery Department of Ngoerah Hospital, Denpasar, between January 2023 and December 2024.

Total sampling was applied. Inclusion criteria were patients with a clinical diagnosis of chronic tonsillitis who underwent tonsillectomy during the study period. Patients with incomplete

medical records were excluded. Variables analyzed included age, sex, chief complaint, indication for tonsillectomy (absolute or relative according to AAO-HNS guidelines), and tonsil size based on the Brodsky classification.<sup>9-11</sup> Data were analyzed descriptively and presented in tables and narrative form.

## RESULT

A total of 58 patients met the inclusion criteria. The most common age group was 12–25 years (41%), followed by 26–45 years (24%). Male patients accounted for 55% of cases.

**Table 1.** Age Distribution of Patients with Chronic Tonsillitis Undergoing Tonsillectomy

Age group (years)	n	%
0–5	4	7
6–11	15	26
12–25	24	41
26–45	14	24
46–65	1	2
<b>Total</b>	<b>58</b>	<b>100</b>

The largest proportion of patients was in the 12–25 year age group (41%).

**Table 2.** Sex Distribution of Patients

Sex	n	%
Male	32	55
Female	26	45
<b>Total</b>	<b>58</b>	<b>100</b>

Male patients predominated, accounting for 55% of cases.

**Table 3.** Distribution of Chief Complaints.

Chief complaint	n	%
Recurrent sore throat / odynophagia	54	93
Joint pain with or without fever	4	7
Halitosis	0	0
Malaise	0	0
<b>Total</b>	<b>58</b>	<b>100</b>

The most common chief complaint was recurrent sore throat or pain on swallowing (93%).

**Table 4.** Tonsil Size Distribution (Brodsky Classification)

Tonsil size	n	%
T0	0	0
T1 (<25%)	0	0
T2 (25–50%)	6	10
T3 (50–75%)	44	76
T4 (>75%)	8	14
<b>Total</b>	<b>58</b>	<b>100</b>

Grade T3 tonsillar enlargement was the most frequently observed finding.

The most frequent chief complaint was recurrent sore throat or pain on swallowing (93%). Absolute indications for tonsillectomy were found in 27% of patients, mainly tonsillar hypertrophy causing airway obstruction, severe dysphagia, or sleep disturbance. Relative indications were present in 73% of patients, predominantly recurrent tonsillitis occurring three or more times per year despite adequate antibiotic therapy.

Regarding tonsil size, the majority of patients had grade T3 tonsillar enlargement (76%), followed by T4 (14%) and T2 (10%).

## DISCUSSION

This study showed that most patients with chronic tonsillitis undergoing tonsillectomy were adolescents and young adults, with the highest proportion in the 12–25 year age group. Similar age distributions have been reported in previous Indonesian studies, suggesting that recurrent tonsillitis and tonsillar hypertrophy are particularly common in this age group.<sup>6–8</sup>

Male predominance observed in this study is consistent with findings from regional and international studies.<sup>12–14</sup> Differences in environmental exposure, immune response, and hormonal factors may contribute to this distribution, as estrogen is known to enhance humoral and cellular immune responses in females.<sup>15</sup>

Recurrent sore throat or odynophagia was the most frequent chief complaint, reflecting the chronic inflammatory process of the tonsils. This finding aligns with previous studies and clinical guidelines identifying recurrent sore throat as the primary indication for tonsillectomy.<sup>9,16</sup> Most patients underwent tonsillectomy based on relative indications, particularly recurrent tonsillitis occurring three or more times per year despite adequate antibiotic therapy, in accordance with established recommendations.<sup>9,10,16</sup>

Grade T3 tonsillar hypertrophy was the most common tonsil size observed. Chronic inflammation may lead to parenchymal hyperplasia, crypt obstruction, and bacterial persistence within the tonsils, resulting in recurrent infection and progressive enlargement.<sup>2,11,17</sup> These findings emphasize the importance of appropriate patient selection and timely surgical intervention in chronic tonsillitis management.

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