


Characteristics Of Chronic Suppurative Otitis Media: Literature Review

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Article Info	ABSTRACT
Keywords: Characteristics, CSOM	Introduction: Chronic suppurative otitis media (OMSK) was previously called otitis media perforata (OMP) or colloquially known as congek. What is called chronic suppurative otitis media is a chronic infection in the middle ear with perforation of the tympanic membrane and secretions coming out of the middle ear continuously or intermittently. Objective: This literature aims to look at the picture of chronic suppurative otitis media. Method: This research uses a literature review method. Scientific articles or journals are downloaded from PubMed, Garuda Portal, and Google Scholar with SINTA IV and V standards in the 2015-2023 period. The keywords in the search for this article are characteristics, chronic supportive otitis media. Results: In this literature, there were 6 research articles that reported the description of chronic suppurative otitis media. Conclusion: The description of chronic suppurative otitis media based on gender is more common in men than women, CSOM patients based on type have more benign types than malignant types, in CSOM patients based on the main complaint there are more otorrhea than hearing loss and otalgia.
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INTRODUCTION

Chronic suppurative otitis media (OMSK) was previously called otitis media perforata (OMP) or colloquially known as congek. What is called chronic suppurative otitis media is a chronic infection in the middle ear with perforation of the tympanic membrane and secretions coming out of the middle ear continuously or intermittently. The discharge may be thin or thick, clear or in the form of pus. The course of acute otitis media with perforation of the tympanic membrane becomes chronic suppurative otitis media if the process lasts more than 2 months. If the infection process lasts less than 2 months, it is called subacute suppurative otitis media. Several factors that cause OMA to become CSOM include therapy that is given too late, inadequate therapy, high germ virulence, the patient's immune system is low (undernutrition) or poor hygiene.(Soepardi, EA et al. (2017)

CSOM can be divided into 2 types, namely safe type CSOM (mucosal type = benign type) and dangerous type CSOM (bone type = malignant type). The inflammatory process in safe type CSOM is limited to the mucosa only, and usually does not affect the bones. The perforation is centrally located. Generally, the safe type of CSOM rarely causes dangerous complications. In the safe type of CSOM there is no cholesteatoma. What is meant by

malignant type of CSOM is CSOM accompanied by cholesteatoma. CSOM is also known as dangerous type CSOM or bone type CSOM. The perforation in dangerous type CSOM is marginal or attic, sometimes there is also cholesteatoma in CSOM with subtotal perforation. Most of the dangerous or fatal complications arise in the dangerous type of CSOM. Soepardi, EA et al. (2017)

Several studies have proven that based on research, data obtained from 32 people who sought treatment at the Buleleng Regency Regional Hospital polyclinic for the period January 2020-December 2022. The profile of CSOM patients based on age is mostly in the 41-60 year age group as many as 17 people or 53%, based on gender, the majority are women, 19 people (59.375%), based on the highest main complaint with complaints of otorrhea, namely 25 people (78.125%), based on the type of CSOM, the benign type is the type that is most commonly suffered, namely 28 people (78.125%), the CSOM profile is based on the side that is most affected on the unilateral side, 28% or 87.5%. (Bagus, et al (2023)

Based on research conducted at the Regional General Hospital Dr. H Chasan Boesoirie for the period January-July 2019, it can be concluded that CSOM patients based on age were more likely to be in the 11-20 year age group by 11 people (33.3%) compared to other age groups, CSOM patients based on gender were more male as many as 18 people (54.5%) compared to women, CSOM patients based on the main complaint were more otorrhea as many as 20 people (60.6%) compared to hearing loss and otalgia, CSOM patients based on the type were more benign types as many as 33 people (100, 0%) compared to the malignant type, CSOM patients based on a history of otitis media were 14 people (42.2%). (Umar, NS Et al (2019)

Based on the background described above, researchers want to know more about the description of chronic suppurative otitis media patients. Many studies have shown the incidence of ENT diseases in Indonesia. Therefore, it is necessary to conduct a literature study so that a conclusion can be drawn from these various studies. This is what makes researchers interested in conducting this literature review. This literature review aims to see the picture chronic suppurative otitis media patients.

METHOD

This research uses a literature review method. Literature was obtained by reviewing scientific articles or journals downloaded from PubMed, Garuda Portal and Google Scholar with SINTA IV and V standards. Articles were screened based on provisions including articles published in 2015-2022, published articles can be downloaded in full text and has open access, articles with qualitative, quantitative, mixed method designs as well as literature reviews regarding descriptions chronic suppurative otitis media patients. Key words in article searches include characteristics, ENT disease.

RESULTS AND DISCUSSION

No	Writer	Research purposes	Location	Number of Samples	Research design	Results	Determinant Factors
1.	Taufan Hendra Wirawan, I Made Sudipta, Sari Wulan Dwi Sutanegara(2020)	To understand the characteristics of chronic suppurative otitis media sufferers in the period January-December 2014.	Sanglah Central General Hospital (RSUP).	144	Descriptive with a retrospective cross sectional design.	<ul style="list-style-type: none"> - The highest age is 10-20 years (25.7%), the smallest is more than 60 years (4.9%). - The most common gender was male 74 (51.4%), - The most common type of CSOM is the benign type 135 (93.8%), - The most frequent complaint 	Total number of sufferers, age, gender, type of CSOM, clinical symptoms and complications

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						was otorrhoea (97.2%), the least was vertigo (3.5%).	
2.	Endi Ananda Khrisn, I Made Sudipta (2019)	Knowing the characteristics of Chronic Suppurative Otitis Media sufferers in 2015.	Sanglah General Hospital Denpasar	45	Descriptive, total sampling	<ul style="list-style-type: none"> - The highest age was 31-40 years, namely 13 (28.9%). lowest at age 61-70 years, namely 2 (4.4%). - The most common gender is male 23 (51.1%) - KThe most common main 	Characteristics, Chronic Suppurative Otitis Media,

No	Writer	Research purposes	Location	Number of Samples	Research design	Results	Determinant Factors
						complaint was otorrhoea, 27 (60%), and the least vertigo, 3 (6.7%). - The most common type of CSOM is the benign type, 37 (82.2%).	
3.	Syopyanah Sri Puspita, Hermiaty Nasaruddin, Andi Tenri Sanna Arifuddin, Ahmad Ardhani Pratama, Syamsu Rijal. (2023)	Knowing the characteristics of chronic suppurative otitis media patients Period June 2018-December 2021.	Ibnu Sina Hospital Makassar	50	Observational with a descriptive approach.	- The highest age is 20 – 60 years 35 (70%), while the lowest is 0 – 1 year 1 (2%). - The most common	Chronic suppurative otitis media (CSOM); Cross Sectional Study; benign

No	Writer	Research purposes	Location	Number of Samples	Research design	Results	Determinant Factors
						gender is female 31 (62%) - The most common main complaints were otorrhea 22 (44%), at least tinnitus 2 (4%), and feeling of fullness in the ears 2 (4%). - The most common type of CSOM is benign 48 (96%).	
4.	Eka Arie Yuliyani, Didit Yudhanto, Hamsu Kadriyan,	Identifying the characteristics of CSOM sufferers for	NTB Provincial Hospital	33	Total sampling	- The most common gender is	Hearing disorders, Characteristics,

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	Prima Belia Fathana, Mohammad Faisal Libryan Syamsul, IGA Trisna Aryani (2023)	the period July-December 2021.	ENT Polyclinic			male 19 (57.6%), - The highest age was 9-23 years 18 (54.6%), while the lowest was >63 (3.03%) - Types of CSOM, most commonly Benign Type, namely 25 (75.8%)	CSOM
5.	Nabila Sidi Umar, M. Isa Pary, Soesanty 2019)	Know Characteristics of Chronic Suppurative Otitis Media Patients for the Period January– July 2019	Ear Nose Throat Polyclinic, RSUD Dr. H Chasan Boesoirie	33	Cross-sectional	- The most common age group was 11-20 years, 11 (33.3%), and fewer than 1 (3.0%).	Chronic Suppurative Otitis Media

No	Writer	Research purposes	Location	Number of Samples	Research design	Results	Determinant Factors
						<ul style="list-style-type: none"> - Gender, mostly men 18 (54.5%). - The main complaint, the most common was otorrhea as many as 20 (60.6%), - Based on the type of CSOM, the most common type was benign, 33 (100.0%). 	
6.	Eka Prasasti Clearinsyah, Christian Lopo, M. Sabir. (2021)	Knowing the characteristics of Chronic Suppurative Otitis Media (OMSK) in 2017.	Section/SMF Ear Nose Throat-Head Neck Health Sciences (THT-KL)	174	Retrospective descriptive with a quantitative approach.	- The number of female and male CSOM patients is comparable in gender.	CSOM characteristics.

No	Writer	Research purposes	Location	Number of Samples	Research design	Results	Determinant Factors
			Undata Hospital, Palu.			- The largest age group is 26-45 years old, 29.3%. Smallest of the group parents, 1.7%.	

Discussion

Chronic suppurative otitis media (OMSK) was previously called otitis media perforata (OMP) or colloquially known as congek. What is called chronic suppurative otitis media is a chronic infection of the outer border of the middle ear with perforation of the tympanic membrane and secretions coming out of the middle ear continuously or intermittently. The discharge may be thin or thick, clear or in the form of pus. (Soepardi, EA et al. 2017)

The results of a literature review from journals obtained characteristics of chronic suppurative otitis media based on age according to Taufan et al, at age 10-20 years, Endi et al, at age 31-40 years, Syopyanah et al, at age 20-60 years, Eka et al, at age 9-23 years old, Nabila et al 10-20 years old, Eka Prasasti et al aged 26-45 years.

Anatomically, there are differences between children's ears and adult ears, the eustachian tube which connects the middle ear to the nasopharynx is about 38 mm long in adults, in children the length of the eustachian tube is shorter, namely 13-18 mm, wider and horizontal, and has drainage is minimal compared to adults so that protection in children's ears is poor which allows for a high incidence of middle ear infections in children. (Sari, MRN and Imanto, M. 2020). Based on surveys in several countries, the prevalence of CSOM is found to be high in school-age children, many cases are found in teenagers who are at school age and are studying, however, due to inadequate treatment in dealing with chronic infections, this causes a high number of CSOM cases. In line with research by Taufan, et al and Syopyanah et al. Meanwhile, in the research of Endi, et al, Sopyanah, et al, and Eka Prasasti, et al, there were more people in adulthood. This is caused by many factors, one of which is the result of ear infections that started at childhood, and also a history of fluid coming out of the ears since childhood and coming back when they grow up, CSOM that occurs is a continuation of complaints that occurred when they were small.(Suharni et al., 2023)

Gender also determines the incidence of CSOM. Infectious episodes of otitis media caused by *Streptococcus pneumoniae* have been associated with recurrent otitis media and occur more frequently in boys than in girls. The incidence of CSOM in men is more than in women because men dominate the incidence of Acute Respiratory Infections (ARI) and differences in immunological responses due to hormonal factors between men and women which disrupt the function of the eustachian tube and CSOM occurs. (Sari, MRN and Imanto, M. 2020). Of the 6 journals, the majority of journals reporting more men than women were found in 4 journals (Taufan et al., Endi et al., Eka et al., and Nabila et al.), 1 journal with the most women (Syopyanah et al.), and 1 journals equally between men and women (Eka Prasasti et al.)

The classification of CSOM can be divided into 2 types, namely, the benign type of CSOM, usually on the mucosa only and not affecting the bones. The perforation is centrally located. Generally, the safe type of CSOM rarely causes dangerous complications. In the safe type of CSOM there is no cholesteatoma, and in the malignant type of CSOM there is cholesteatoma because this type is often associated with the risk of serious complications and can cause bone erosion due to cholesteatoma, so this type is also called the dangerous or unsafe type. Sometimes cholesteatoma is also found in CSOM with subtotal perforation.

Granulation and osteitis are found in most cases. (Daniel, G. et al. 2018). From 5 journals, the benign type was obtained.

The dominant symptom of CSOM is persistent ear discharge that does not improve with treatment. The benign type and the dangerous type can be accompanied by continuous or intermittent ear discharge for 3 months accompanied by lack of hearing, which can be accompanied by a cough, cold or sore throat, ringing in the ears, dizziness, headaches. (Ministry of Health of the Republic of Indonesia. (2018). Of the 4 journals, the main complaint was otorrhea.

CONCLUSION

Based on the results of identification and several studies in this literature review, it can be concluded that more adults suffer from chronic suppurative otitis media than children and adolescents. Gender is more male than female, CSOM patients based on type have more benign types than malignant types, CSOM patients based on the main complaint are more otorrhea than other hearing disorders.

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