

CHARACTERISTICS OF CHRONIC SUPPURATIVE OTITIS MEDIA SUFFERERS AT WAIKABUBAK HOSPITAL

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ABSTRACT

Chronic suppurative otitis media (CSOM) is one of the most common ear diseases in developing countries, one of which is Indonesia. CSOM is the stage of middle ear disease where there is chronic inflammation of the middle ear and mastoid and tympanic membrane that is not intact (perforation) and found secretions (otorrhea), purulent intermittent, said to be chronic if the disease is intermittent or persists for 2 months or more. Prevalence surveys around the world, show the incidence of CSOM is 65-330 million sufferers with watery ears where 60% of them have conductive hearing loss. This is an important issue for dealing with deafness in developing countries. This study aims to determine the distribution of CSOM sufferers at Waikabubak Hospital in September 2022 – February 2023 based on age, sex, side of the ear infected and type of otorrhea. This research was conducted at the ENT-KL Clinic at Waikabubak Hospital in February 2023 using secondary data from the patient register book. There were 85 CSOM patients recorded in September 2022 - February 2023. The most common incidence happen in adult age 26-45 years old with the number of 30 patients (35.3%). CSOM is more common in women than men with an the number of incidence 43 patients (50.6%). Based on the side of the ear infected with CSOM, it was more common on the unilateral side, with the number of 72 patients (84.7%) and based on the type of otorrhea, the active type was more frequent, with the number of 67 patients (78.8%).

INTRODUCTION

Chronic suppurative otitis media (OMSK) is one of the most common ear diseases in developing countries, one of which is Indonesia (Poluan, Utomo, & Dharmayanti, 2021). CSOM is a chronic inflammation of the middle ear and mastoid with a tympanic membrane that is not intact (perforated) and found secretions (otorea), purulent that disappear, are said to be chronic when the disease disappears arising or persists for 2 months or more (Bhandare, Eisbruch, Antonelli, & Mendenhall, 2014).

Prevalence surveys around the world show the incidence of CSOM is 65-330 million sufferers, of which 60% have conductive hearing loss (Basumatari & Rajbangshi, 2019). This is an important problem for addressing deafness in developing countries (Olusanya, 2015).

Based on the results of the National Health Survey of the Senses of Vision and Hearing by the Ministry of Health of the Republic of Indonesia in 1994-1996, the morbidity rate of Ear, Nose, and Throat (ENT) in Indonesia was 38.6% with the highest prevalence of morbidity in ear and hearing loss cases of 38.6% and the prevalence of chronic suppurative otitis media between 2.1-5.2% (Webster & Chance, 1993).

There are two factors that influence otitis media to develop into CSOM, including intrinsic factors, namely race, age, history of ARI, OMA, and level of knowledge of parents, while extrinsic factors are parents of smokers and daycare.⁴

On the other hand, health services that are still developing and parental education that is still low, can increase the likelihood of OMSK (Bednaříková, Bavorova, & Ponkina, 2016). Therefore, the author intends to conduct research on the distribution of CSOM patients at Waikabubak Regional Hospital in September 2022-February 2023.

RESEARCH METHODS

This research was conducted at the ENT-KL Polyclinic of Waikabubak Hospital which was carried out in February 2023.

The research design used a descriptive cross sectional research design with total sampling techniques. This study used secondary data, namely with medical records at Waikabubak Regional Hospital from September 2022 – February 2023 with a total of 85 samples.

The variables of the study consisted of independent variables, namely age, sex, infected side of the ear and the CSOM phase. The dependent variable of this study is CSOM.

RESULTS AND DISCUSSION

The description of OMSK patients based on the number of samples is 85 patients in September 2022 – February 2023.

OMSK Sufferers by Age

Table 1. Description of CSOM sufferers by age group

Age	Number (of people)	Prevalence (%)
Toddler (1-5 years)	3	3,6
Children (6-11 Years)	3	3,6
Adolescent (12-25 years old)	22	25,8
Adult (26-45 years old)	30	35,3
Elderly (46-65 years old)	20	23,5
Seniors (>65 years old)	7	8,2

Sum	85	100
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The description of CSOM sufferers in 2009 based on age groups according to the Ministry of Health of the Republic of Indonesia, it was found that the highest incidence rate occurred in the adult group (26-45 years) as many as 30 people and the smallest incidence occurred in the toddler group (1-5 years) as many as 3 people and children (6-11 years) as many as 3 people (Table 1).

Table 2. Description of CSOM sufferers by gender

Gender	Number (of people)	Prevalence (%)
Man	42	49,4
Woman	43	50,6
Sum	85	100

The description of CSOM sufferers based on sex found that the incidence rate in men was 42 people and the incidence rate in women was 43 people (Table 2).

Table 3. Description of CSOM sufferers based on the side of the infected ear

The infected side of the ear	Number (of people)	Prevalence (%)
Unilateral	72	84,7
Bilateral	13	15,3
Sum	85	100

The description of CSOM patients based on the side of the infected ear found that the highest incidence rate was on the unilateral side of 72 people compared to the incidence rate on the bilateral ear side of 13 people (Table 3).

Table 4. Description of CSOM sufferers by phase

Type	Number (of people)	Prevalence (%)
Active	67	78,8
Calm	18	21,2
Sum	85	100

The description of CSOM sufferers based on the CSOM phase found that the incidence of CSOM with an active phase of 67 people tends to be more than the incidence of CSOM with a calm phase of 18 people (Table 4).

CSOM is a chronic inflammation of the middle ear and mastoid with a tympanic membrane that is not perforated and found secretions (otorea), purulent that disappear arising, said to be chronic if the disease disappears arising or persists for 2 months or more. This study was conducted at the ENT-KL Polyclinic of Waikabubak Hospital using secondary data on medical records of Poly Clinic patients from September 2022 to February 2023 on patients suffering from CSOM and successfully recorded A total of 85 samples.

Based on data obtained from these medical records, the highest incidence of CSOM sufferers is in the adult group (26-45 years) with 30 patients (35.5%) and the smallest incidence in the toddler group (1-5 years) and children (6-11 years) as many as 3 patients (3.6%). These results are in accordance with research conducted by Eka Prasasti, et al in 2021 at Undata Hospital Palu on OMSK patients where the most frequent cases were found in adult patients 26-45 years with a percentage of 16.1% compared to other age groups.⁵ Research by Arvind in 2014, found the most frequent cases of CSOM in patients under five and children aged less than 10 years at 39%.⁶ This study is in line with that conducted by Meis Malirmasele, et al in 2012, with the results of the most CSOM sufferers in the age range under 5 years as much as 31.5%.¹³ This is because at a younger age the ear canal between the nose, Eustachian tube and the middle ear has not been fully formed in growth. CSOM can be experienced due to lack of hygiene, unhealthy behavior, and a history of chronic infections that are not adequately treated. Many studies on CSOM show that all age ranges can experience CSOM. ¹⁴ However, there are other factors that cause CSOM to occur frequently in children, namely a history of recurrent otitis media, a history of parents with CSOM, and socioeconomic conditions such as living in crowded environments, daycare centers or orphanages that are at risk for suffering from CSOM.¹⁵

Based on gender, the results of this study show that the incidence rate in women and men is almost the same, namely 50.6% in women and 49.4% in men. Research by Wilson Wijaya, et al in 2022 showed that the incidence of CSOM in women and men is 51% and 49% respectively.⁷

The research conducted by Eka Prasasti et al, showed that the incidence of CSOM in men and women was comparable at 87 people (50%),⁵ as well as research conducted at RSUP Prof.Dr.R. Kandou in 2014-2016 obtained comparable results between female and male sufferers. In another study, it was also found that men experience CSOM more often, which is a coincidence. Female patients are usually more aware of CSOM complaints and will immediately see a doctor compared to male patients.⁸ This shows that gender is not a risk factor for CSOM and there are no anatomical differences between men and women.¹²

Grouping of CSOM sufferers based on the side of the infected ear is unilateral and bilateral. In this study, it was found that the incidence of CSOM was more infected in the unilateral ear which was 72 cases (84.7%) and the incidence rate on the bilateral side was 13 cases (15.3%). There are similarities to the results of research found by Shrestha et al, that the most infected ear side is the unilateral side which is 216 (93.9%) while bilateral 7 (6.1%).⁹ In addition, research conducted by Pangemanan

et al, found that cases of CSOM in one ear (unilateral) are higher than CSOM in both ears (bilateral), namely unilaterally amounting to 60 patients (77%), while bilateral as many as 18 patients (23%).¹² Patients complained more unilaterally than bilaterally. This is because otitis media infection rarely occurs in the patient's ear at the same time so that if one ear is infected, the patient and his parents become more careful for the ear next to it.¹⁰

Based on the phase, CSOM is divided into active phase and quiet phase, where the difference between the two phases is based on the presence or absence of secretions that come out in the infected ear. Based on the results of the sample distribution picture of the CSOM phase, the active phase has a higher incidence rate of 67 (78.8%) than the calm phase which has an incidence rate of 18 (21.2%). These results are in accordance with the research of I Putu Arya Agung et al, where of all CSOM patients, 68.3% of patients who experience otorea actively.¹¹ This shows that people are more vigilant because of these complaints and see a doctor. This can be useful in preventing complications caused by CSOM, in accordance with the hope of the National Committee for the Prevention of Hearing Loss and Deafness that improving the health of the sense of hearing is one way to realize quality Indonesian people.¹⁶

CONCLUSION

The number of OMSK patients at Waikabubak Regional Hospital in September 2022 – February 2023 is 85 people. The distribution of CSOM sufferers based on age most occurs in the adult group of 26-45 years, which is 30 people (35.3%). Based on gender, the incidence of CSOM between women and men is almost the same, with the percentage of women as much as 50.6%. Based on the infected side of the ear, it was more common on the unilateral ear side by 72 people (84.7%). Based on the CSOM phase, the incidence was higher in the active phase than the calm phase, which was 67 people (78.8%).

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