KESANS: International Journal of Health and Science
e-ISSN: 2808-7178, p-ISSN: 2808-7380
Web: http://kesans.rifainstitute.com/index.php/kesans/index

Characteristics of Poly ENT HN Patients at Umbu Rara Meha Hospital and Physical Examination Features Obtained in Cases of Chronic Suppurative Otitis Media (CSOM) Benign Type and Malignant Type

Bopy Grisnawati Hamaduna, I Made Sunantara Astrea, Michael Alexander Dira Damanik
General Practitioner of Umbu Rara Meha Waingapu Hospital, ENT HN Resident Doctor Udayana University, Indonesia
bopyhamaduna@gmail.com, Sunantara.astrea@gmail.com

Article Information
Submitted: **05 May 2023**
Accepted: **07 May 2023**
Online Publish: **20 May 2023**

Abstract
Introduction: *Chronic suppurative otitis media (CSOM) is a chronic infection of the middle ear which has been in the process for more than 2 months, which is characterized by a perforation of the tympanic membrane and continuous or intermittent discharge from the ear canal. In developing countries like Indonesia, the incidence of CSOM is quite high.* ***Objective:*** *to find out the characteristics of patient visits to the ENT polyclinic at Umbu Rara Meha Hospital and to find differences in the results of physical examinations for the Benign/ Benign type CSOM and the Danger/Malignant type of CSOM.* ***Method:*** *The type of research used is observational analytics with a cross sectional design.* ***Results and Discussion:*** *based on the characteristics of patients visiting the ENT HN polyclinic, it was found that the dominant patients visiting the ENT HN polyclinic were male patients 50.7%, the age group 21-30 years 23% and ages 0-10 years 18.4%, most residents in cities who visiting Kambajawa 16.2%, high school education level 34.6%, Christianity 62.5%, using BPJS payments 51.5% and coming from the Sumba tribe 54.4%. The top 3 diseases in the ENT HN field are obturan cerumen 18.36%, rhinosinusitis 13.97% and cases of CSOM 12.2%.* ***Conclusion:*** *CSOM is included in the top three lists of the ten most common diseases at Umbu Rara Meha Hospital, determining the type of CSOM including the Benign or benign type or the malignant or malignant type will determine the appropriate therapeutic action and the prognosis of the patient's disease.*
Keywords: Patient characteristics; Chronic Suppurative Otitis Media; Differences in Physical Examination Results in Benign and Malignant CSOM;

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How to Cite **Bopy Grisnawati Hamaduna, I Made Sunantara Astrea, Michael Alexander Dira Damanik/Characteristics of Poly ENT HN Patients at Umbu Rara Meha Hospital and Physical Examination Features Obtained in Cases of Chronic Suppurative Otitis Media (CSOM) Benign Type and Malignant Type, Vol. 2, No. 8, 2023**
DOI https://doi.org/10.54543/kesans.v2i8.176
e-ISSN/p-ISSN **2808-7178 / 2808-7380**
Published by **Rifa'Isntitute**

Characteristics of Poly ENT HN Patients at Umbu Rara Meha Hospital and Physical Examination Features Obtained in Cases of Chronic Suppurative Otitis Media (CSOM) Benign Type and Malignant Type

Introduction

Chronic suppurative otitis media is a chronic middle ear infection characterized by permanent perforation of the tympanic membrane, continuous or missing discharge from the middle ear (Widyasari et al., 2022). Factors that cause otitis media to become chronic are inadequate therapy, high germ virulence, low patient resistance, and poor hygiene. Tympanic membrane perforation can occur in tense, marginal, and Atik. The various types of CSOM are divided into Active Phase CSOM and Calm Phase CSOM. CSOM Active phase is CSOM that is still actively out of secret from cavum timpani. CSOM The quiet phase is when CSOM does not exit secrets.

In addition, CSOM is divided into 2 types, namely safe / benign type and danger type (Alkatiri, 2016). Safe/benign type CSOM (benign) inflammatory process is limited to the mucosa (does not destroy bone directly) so it is often called mucosal type CSOM, CSOM tub timpani. Perforations are centrally located, secret mucopurulent odorless and no cholesteatoma.

CSOM The hazard type (CSOM with cholesteatoma) is called the hazard type because it tends to cause complications of danger because its progressiveness is destructive. Secret purulent, foul odor due to bone necrosis and cholesteatoma. The location of the perforation is in Atik or marginal (UTAMI &; NASUTION, 2021). The determination of the type of CSOM will greatly determine the provision of therapy and the continuation of the prognosis of the disease from the patient and the success of the therapy given by the doctor.

Method

The type of research used is observational analytics with a cross sectional design. Sampling is carried out in total sampling. The research was conducted at Umbu Rara Meha Waingapu Hospital. This research has received permission from the Umbu Rara Meha Waingapu Hospital.

The variables studied were the description of the results of physical examination of patients with Benigna type CSOM and malignant type CSOM. Meanwhile, the characteristic data of patients who visited at the ENT HN polyclinic at Umbu Rara Meha Hospital used a descriptive retrospective method carried out at the ENT HN Polyclinic and the Inpatient Ward of Umbu Rara Meha Hospital from January 2020 to December 2020 by looking at the medical record data of patients visiting Umbu Rara Meha Hospital.

Results and Discussion

Research data on 136 patients who visited the ENT HN poly were taken patient medical record data. Data capture and data analysis are carried out. The following characteristic data were obtained:

Data Description

In this section, we will discuss the description of data related to Gender, Age Group, Ethnicity, Religion, Education, Employment, and Medical Financing from 136 respondents.

1. Description of Gender Data

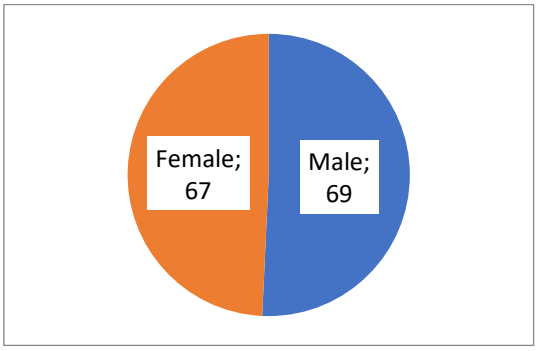


Figure 1 Respondent's Gender

Based on the figure above, there were 69 respondents who were male or as many as 50.7% while the remaining 67 respondents were female or 49.3% of the total 136 respondents. So, it can be concluded that men are more respondents in this study.

2. Description of Respondent Age Group Data

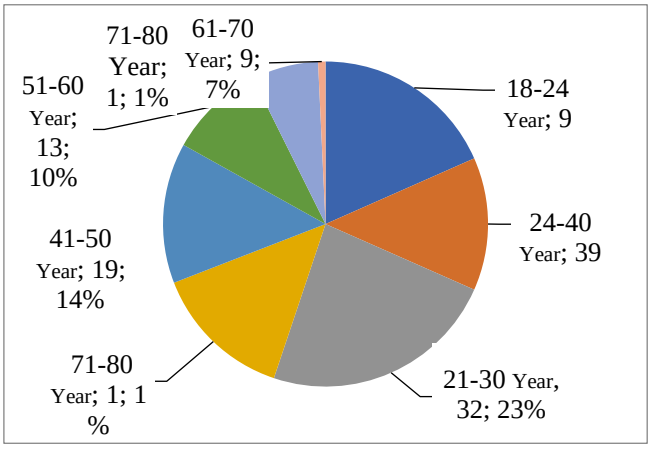


Figure 2. Age Group of Respondents

Based on the picture above, there are 25 people or as many as 18.4% of respondents who are in the age group 0-10 years including 14 respondents are in the Toddler Age group (0-5 years) and 11 respondents are in the Age Group of 6-10 years; There were 18 people or 13.2% of respondents were in the age group of 11-20 years; There were 32 people or 23.5% of respondents were in the age group of 21-30 years; There were 19

people or 14% of respondents were in the age group of 31-40 years; There were 19 people or 14% of respondents were in the age group of 41-50 years; There were 13 people or 9.6% of respondents in the age group of 51-60 years; There are people or 6.6% of respondents are in the age group of 61-70 years and there is 1 person or 0.7% of respondents are in the age group of 71-80 years. So, it can be concluded that respondents in the age group of 21-30 years are the most respondents in this study, namely 32 people (23.5%).

3. Description of Respondent Education Data

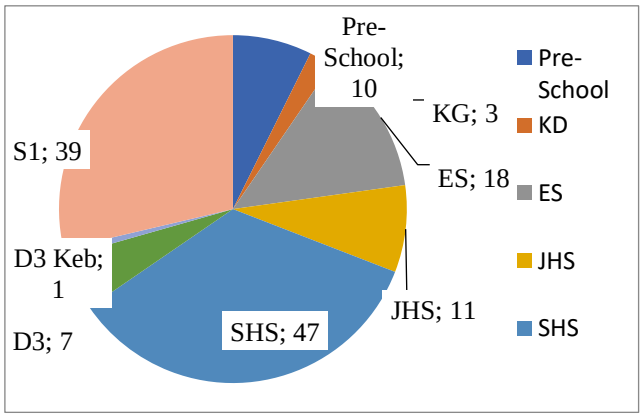


Figure 3. Respondent Education

Based on the sample above, there were 10 respondents (7.4%) Not yet in school, 3 respondents (2.2%) were kindergarten students, 18 respondents (13.2%) were elementary school students and or had the last elementary education, 11 respondents (8.1%) were junior high school students and or had the last junior high school education, 47 respondents (34.6%) were high school students and or had the last high school education, 7 respondents (5.1%) had the last education D3, There was 1 respondent (0.7%) with the last education D3 Midwifery and 39 respondents (28.7%) with the last education S1 (Bachelor). So, it can be concluded that most respondents have a high school education background, which is as many as 47 respondents (34.6%).

4. Description of Respondent's Employment Data

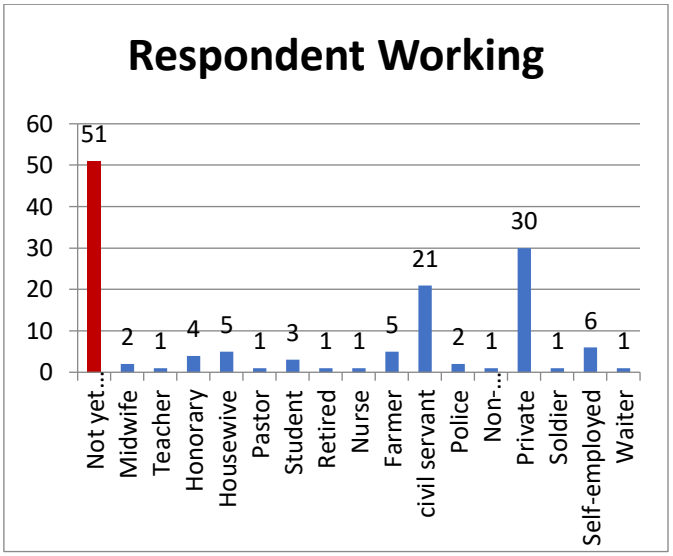


Table 4. Description of Respondent's Employment Data

Based on the above there are 51 respondents (37.5%) who have not worked, there are 2 respondents (1.5%) who work as Midwives, there is 1 respondent (0.7%) who works as a teacher, there are 4 respondents (2.9%) who work as Honorary staff, there are 5 respondents (3.7%) as Housewives, there is 1 respondent (0.7%) who works as a Pastor, there are 3 respondents (2.2%) who are students, there is 1 respondent (0.7%) who is a pensioner, there is 1 respondent (0.7%) who works as a nurse, there are 5 respondents (3.7%) who work as farmers, there are 21 respondents (15.4%) who work as civil servants, there are 2 respondents (1.5%) who work as POLRI, there is 1 respondent (0.7%) who works as a PTT, there are 30 respondents (22.1%) who work as Private Employees, There was 1 respondent (0.7%) who worked as a TNI, there were 6 respondents (4.4%) who worked as self-employed people, and there was 1 respondent (0.7%) who worked as a waiter. So, it can be concluded that most respondents, namely as many as 51 respondents (37.5%) have not worked.

5. Description of Respondent's Religion Data

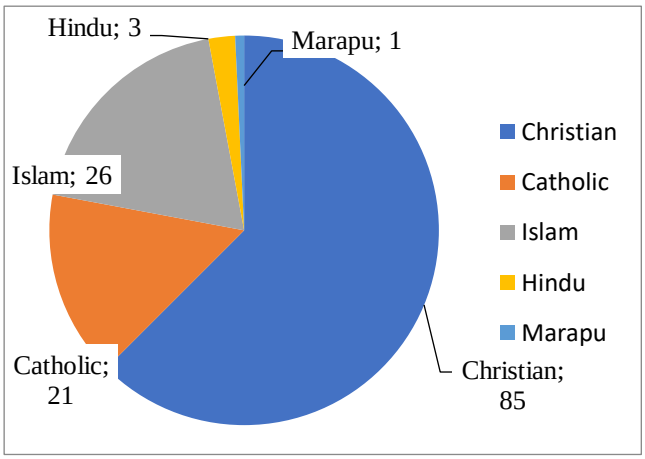


Figure 5. Respondents' Religion Data

Based on the figure above, it can be explained that there are 85 respondents (62.5%) Christians, there are 21 respondents (15.4%) Catholics, there are 26 respondents (19.1%) Muslims, there are 3 respondents (2.2%) Hindus, and there is 1 respondent (0.7%) adhering to the beliefs of the Marapu Tribe. So, it can be concluded that most respondents, namely as many as 85 respondents (62.5%) are Christians.

6. Description of Respondent's Medical Cost Data

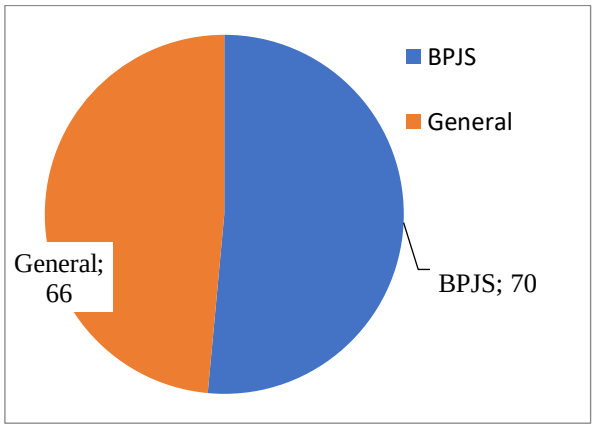


Figure 6. Respondent's Medical Expenses

Based on the Figure 6, it can be explained that there are 70 respondents (51.5%) are BPJS users and the remaining 66 respondents (48.5%) are General Patients. So, it can be concluded, most respondents are BPJS users, which is 70 respondents (51.5%).

7. Description of Respondent Tribe Data

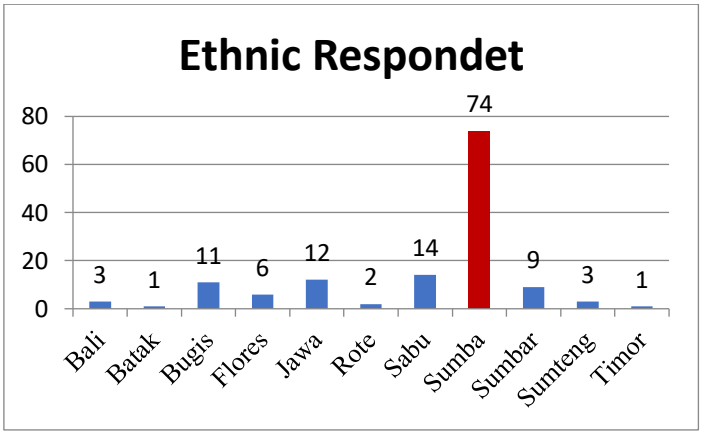


Figure 7. Description of Respondent Tribe Data

Based on the diagram above, it can be explained that there were 3 respondents (2.2%) respondents from the Balinese tribe, there was 1 respondent (0.7%) respondents from the Batak tribe, there were 11 respondents (8.1%) respondents from the Bugis tribe, there were 6 respondents (4.4%) respondents from the Flores tribe, there were 12 respondents (8.8%) respondents from the Javanese tribe, there were 2 respondents (1.5%) respondents from the Rote tribe, There were 14 respondents (10.3%) respondents from the Sabu tribe, there were 74 respondents (54.4%) respondents from the Sumba tribe, there were 9 respondents (6.6%) respondents from the Sumba barat tribe, there were 3 respondents (2.2%) respondents from the Sumba Tengah tribe, and there was 1 respondent (0.7%) respondents from the Timorese tribe. So, it can be concluded, most respondents came from the Sumba tribe, which was 74 respondents (54.4%).

Diagnosis and Therapy

Data related to Diagnosis and Therapy used in this study were taken from data from January 2020 to December 2020 totaling 136 cases.

The diagnoses obtained from 136 cases were as many as 25 kinds of diagnoses. The following are the results of the classification of diagnoses and the number of cases and therapies as follows:

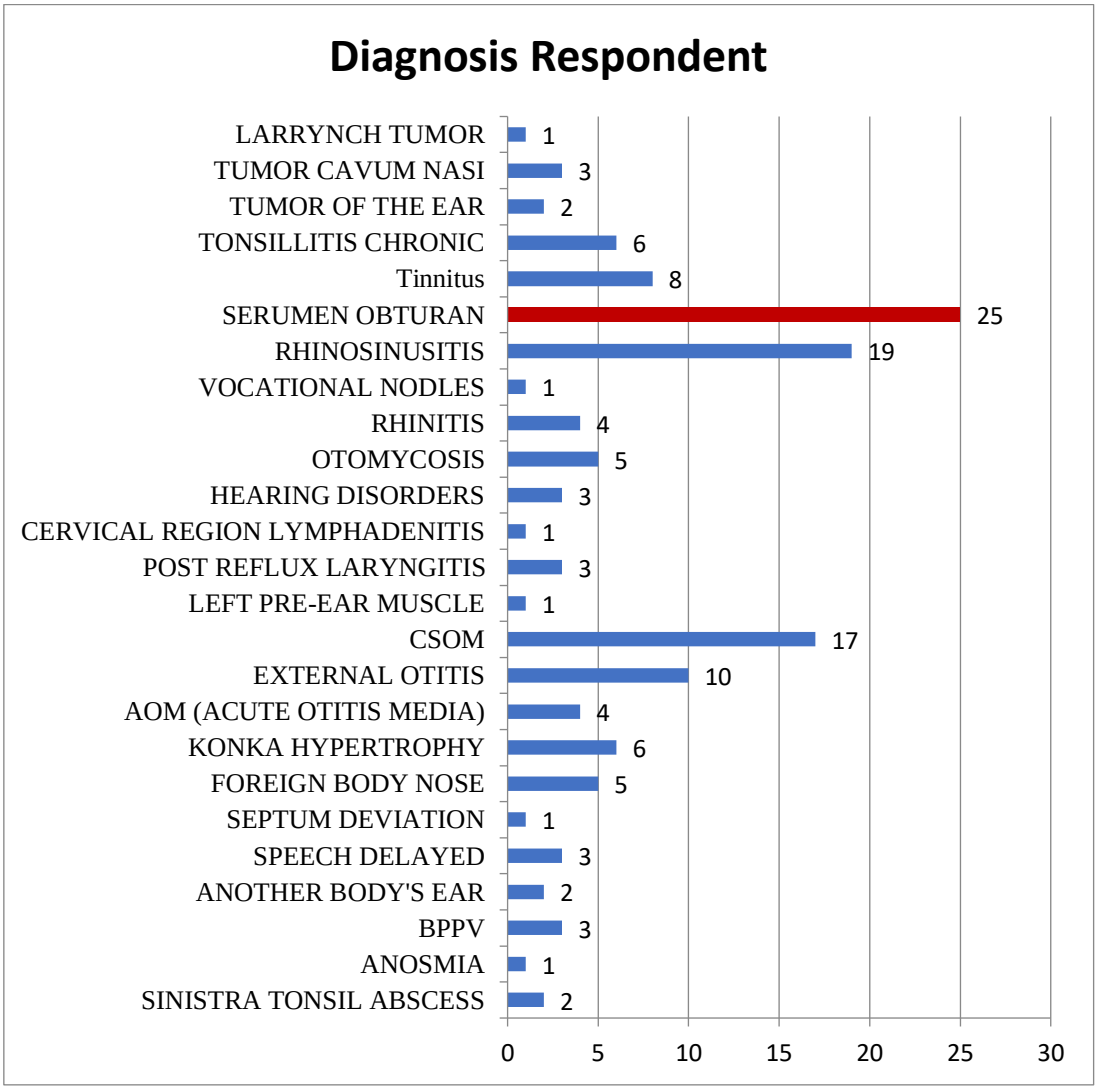
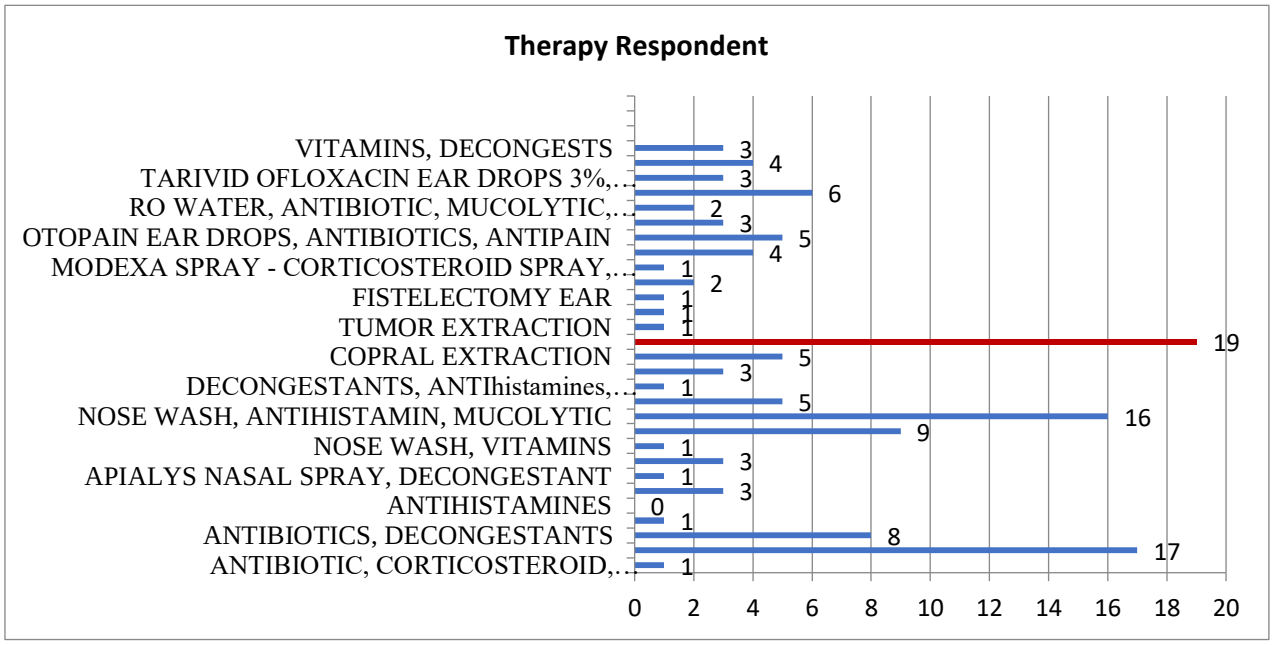


Figure 8. Respondent Diagnosis



Overview 9. Respondent Therapy
Therapy Applied to the Results of the Respondent's Diagnosis

Based on the table above, it can be concluded that the diagnosis of Obtain Cerumen is the most suffered by respondents, which is 25 cases or about 18.38% of the total 136 cases. Followed by rhinosinusitis as many as 19 cases or around 13.97% and CSOM (Chronic Suppurative Media Otitis) as many as 17 cases or equivalent to 12.2%.

Based on figure 9 above, it can be concluded that the most widely used type of therapy for the diagnosis results shown in figure 8 is Cerumen Extraction, Ear Drop Foramen a total of 19 actions from a total of 136 respondents. The use of antibiotics, corticosteroids, and painkillers as many as 17 cases or equivalent to 12.5% and the use of nasal washes, antihistamines and mucolytics as many as 16 cases or equivalent to 11.7%.

Physical examination found to distinguish Benign type CSOM and malignant type

The Chronic Suppurative Otitis Media (CSOM) can be distinguished according to the release of secretions, CSOM is divided into active phase CSOM and calm phase CSOM. CSOM The active phase is CSOM whose secretions are still actively coming out of the tympanic cavity. CSOM quiet phase is when CSOM does not come out secretariat from the timpani cavity. In addition, CSOM is divided into 2 types, namely safe or benign type and hazard type or malignant (Laisitawati et al., 2017). Here are the differences found in benign type CSOM and malignant type:

Table 1
Difference between CSOM Benigna and Malinga

	BENIGNA CSOM	**CSOM Malignant**
Cholesteatoma	-	+
Ear Secretions	Mucopurulent Odorless	Purulent Smell
Deafness	Usually, moderately conductive	Often Deaf Mixed Weight
Perforation	Central, Pars Tense	Atik or marginal
Granulation Network	Very rare	Frequent
Octopus	If there is stemmed mucosal edema	In the form of granulation tissue
Complications	Infrequently	Often

Based on the table, we can adjust it to the physical examination of CSOM patients who visit at the ENT HN poly at Umbu Rara Meha Hospital.

Benign CSOM Screams

The inflammatory process is limited to the mucosa only and usually does not hit the bones. Perforation is centrally located, rarely causing dangerous complications (Puspa et al., 2023). In this type of CSOM there is no cholesteatoma, consisting of a calm phase (dry) and an active phase.

From the examination of the outer ear will appear mucopurulent secretions that do not smell out of the unilateral or bilateral ear. The auricle appears normal if there are no complications, and the mastoid area is not found signs of mastoid inflammation. No auricle pull pain and tragus tenderness are found if CSOM is not accompanied by External Otitis in the auricularis canal. The tympanic membrane can be judged if the secretions from the ear canal have been cleaned.

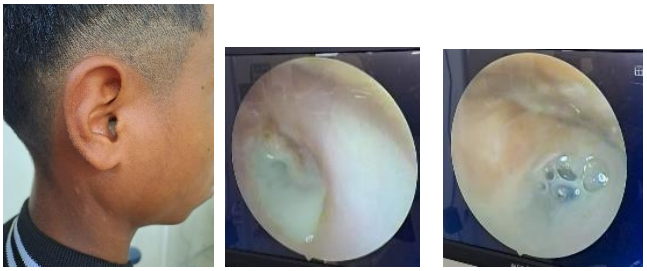


Figure 10. Mucopurulent Secretory at CSOM Benigna

Mucopurulent secretions in the ear canal are cleaned using a solution of H 2 0_2 (hydrogen peroxide). Hydrogen peroxide (H 2 O_2) is a weak acidic liquid that is colorless and strong oxidizing in nature, used to help cleanse pus produced by chronic inflammatory processes. H2022 is bactericidal and is produced by phagocytic leukocytes such as neutrophils and macrophages through a process called oxidative burst or *respiratory burst*

Echoendoscope of the cleaned ear will reveal a picture of the patient's tympanic membrane (MT). In the case of benign type CSOM, the perforation is in Central or Pars Tense.

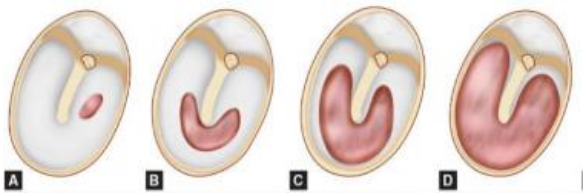


Figure 11. Perforation Type in CSOM Benigna

Figure A:	Small perforations in the anterosuperior quadrant.
Figure B:	The central perforation is shaped like a medium-sized kidney.
Figure C:	Subtotal central perforation.
Figure D:	Complete perforation with annulus fibrosus is destroyed.

In the tympanic membrane of the patient, central subtotal perforation was found on the left and right MT. No polyps, granulation tissue and cholesteatoma were found. The secreted secretions are mucopurulent secretions and are odorless.

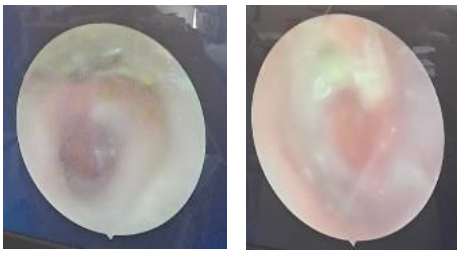


Figure 11. MT CSOM Benigna Overview

Malignant Type CSOM

CSOM Hazard type (CSOM with cholesteatoma) is called the hazard type because it tends to cause danger complications because its progress is destructive (SALSABILA

NABILAH RIFDAH, 2019). Purulent secretions, foul-smelling due to bone necrosis and cholesteatoma present. Location of dietic perforations or marginal (RUMASTIKA et al., n.d.)

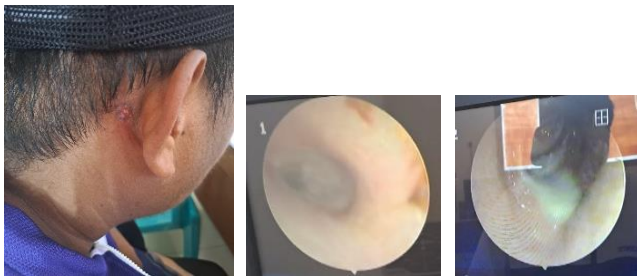


Figure 12. Purulent Secretion on CSOM Malignant

In patients found wounds and pus, the presence of a picture resembling bone destruction by the presence of cholesteatoma. However, it is necessary to do a supporting examination of CT scan and audiometric examination of the patient to make sure.

After cleaning the purulent secretions in the patient's ear using H 2 0_2 (hydrogen peroxide) fluid, an examination of the patient's tympanic membrane can be carried out. In the malignant type CSOM will be found the presence of granulomas and cholesteatomas in the tympanic membrane of the attic and marginal parts.

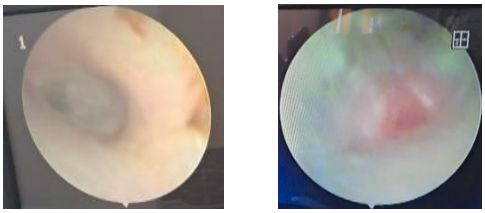


Figure 13. MT Overview on CSOM Malignant MT Dextra Granuloma View

In this patient there is a granuloma on the tympanic membrane but there is no cholesteatoma because it is covered by granuloma tissue. Supporting examinations of CT scan of the head and audiometry are needed to be able to ensure the presence of malignant / malignant type CSOM in patients.

The following is an example of the location of cholesteatoma that can be seen in the examination of malignant type CSOM patients. And the location of the perforation is usually located in Atik and marginal.

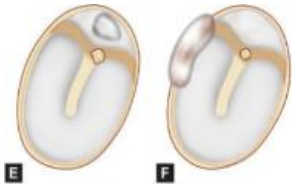


Figure 14. Perforation Type in Malignant CSOM

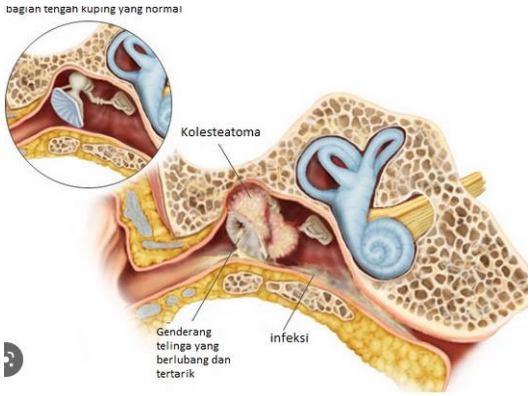


Figure 15. Overview of Cholesteatoma in the Middle Ear

Cholesteatoma is an abnormality of the growth of keratinized squamous epithelium in the middle ear, auditory canal externa, mastoid bone, and petrosum (Farida, 2016). In general, cholesteatoma can be divided into 2 types, namely congenital and acquired types. The acquired type can be divided into primary and secondary. The primary type is characterized by an indented tympanic membrane and generally disturbances occur in the pars *flaccid*. In the secondary type, tympanic membrane perforation occurs and is on the *pars tense*. Most cases of cholesteatoma are *acquired* type (Pelealu, 2012)

The mechanism of occurrence of cholesteatoma is not yet clear, but several factors have been found that increase the risk of cholesteatoma, such as chronic or recurrent otitis media infections, Eustachian tube dysfunction, surgery, trauma, congenital anomalies. Cholesteatoma patients may complain of recurrent otorrhea, dull pain, hearing loss, facial nerve weakness, and/or imbalance.

In most cases, patients present with complaints of manifestations of intracranial complications, such as brain abscesses, meningitis. The diagnosis of cholesteatoma is obtained based on findings on otoscope, namely the presence of drainage or granulation tissue in the ear canal and middle ear. In addition, there is edema and otorrhea that can be accompanied by perforation of the tympanic membrane

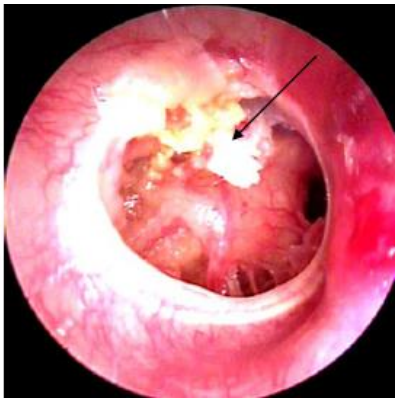


Figure 16. Cholesteatoma in the Atik area (arrow). Source: Ghorayeb, 2006.

The diagnosis of otitis externa needs to be confirmed by CT scan or MRI examination. The examination is also useful to determine the extension of cholesteatoma. In addition, patients need to undergo audiometric examination to assess the severity of hearing loss (Amany et al., 2022)

Cholesteatomas can cause bone erosion, including endocranium (Dewi et al., 2018). Lesions of the endocranium increase the risk of intracranial infection that can lead to death.

Cholesteatoma can only be eradicated through the resection method by mastoidectomy, either radically or radically modified. The choice of surgical method is based on the spread of cholesteatoma, as well as the condition of the tympanic membrane and auditory bone (Gigantika, 2021). After operative action, cholesteatoma can be recurrent in 3-18% of cases

Conclusion

Patient visits in 2020 from January to December recorded 136 patients of ENT HN poly at Umbu Rara Meha Hospital. The dominant patient characteristics of ENT HN poly visits are male patients 50.7%, age group 21-30 years 23% and age 0-10 years 18.4%, most residents in the city who visit Kambajawa 16.2%, high school education level 34.6%, Christianity 62.5%, using BPJS payments 51.5% and coming from Sumba tribe 54.4%. The top 3 diseases in the field of ENT HN are Cerumen obtain 18.36%, Rhinosinusitis 13.97% and CSOM cases 12.2%. The most therapeutic uses used in ENT HN poly are cerumen extraction and foramen ear drop 13.9%, the use of antibiotics, painkillers, corticosteroids 12.5% and the use of nasal washes, painkillers, corticosteroids 11.7%.

CSOM often causes complications both extracranial and intracranial. Complications in chronic suppurative otitis media are divided into two, namely extra-cranial complications which include aces sub periosteal behind the ear, mastoiditis, porosities, labyrinthitis, facial nerve paresis and labyrinth fistula. Intracranial

complications consist of extradural abscess, symplephlebitis of the sigmoid sinuses, brain abscess, otic hydrocephalus, meningitis, and subdural abscess.

Because of this serious complication, it is necessary to conduct an immediate examination and determination of the type of CSOM so that the actions taken are right on target and do not aggravate CSOM and suppress the occurrence of extracranial and intracranial complications. Supporting examinations of CT scan, MRI and Audiometry are very important to determine the exact diagnosis, especially in cases of malignant type CSOM, severity and complications.

Reference

Alkatiri, F. B. (2016). Kriteria diagnosis dan penatalaksanaan otitis media supuratif kronis. *Intisari Sains Medis*, *5*(1), 100–105.

Amany, E. N. Edward, Y. (2022). Peran Audiometri Tutur pada Otitis Media Supuratif Kronis. *Jurnal Otorinolaringologi Kepala Dan Leher Indonesia*, *1*(1).

Dewi, P. C. S. Ekorini, H. M. (2018). Perbandingan bone conduction pada penderita otitis media supuratif kronik dengan kolesteatoma dan tanpa kolesteatoma. *Oto Rhino Laryngologica Indonesiana*, *48*(1), 18–25.

Farida, Y. (2016). Tatalaksana Terkini Otitis Media Supuratif Kronis (OMSK). *Medical Journal of Lampung University*, *6*(1).

Gigantika, S. (2021). *PERBANDINGAN TIMPANOPLASTI DENGAN ATAU TANPA MASTOIDEKTOMI PADA PENDERITA OTITIS MEDIA SUPURATIF KRONIS TIPE AMAN: TINJAUAN DARI KEBERHASILAN GRAFT DAN PERBAIKAN PENDENGARAN*. Universitas Hasanuddin.

Laisitawati, A. Suciati, T. (2017). Hubungan Otitis Media Supuratif Kronik dengan Derajat Gangguan Pendengaran di Departemen THT-KL RSUP Dr. Mohammad Hoesin Palembang Periode 2014-2015. *Majalah Kedokteran Sriwijaya*, *49*(2), 57–65.

Pelealu, O. C. P. (2012). Mekanisme Imun Terbentuknya Kolesteatoma. *Jurnal Biomedik: JBM*, *4*(2).

Puspa, S. S. Rijal, S. (2023). Karakteristik Pasien Otitis Media Supuratif Kronik di Rumah Sakit Ibnu Sina Makassar Periode Juni 2018 Desember 2021. *Fakumi Medical Journal: Jurnal Mahasiswa Kedokteran*, *3*(3), 199–208.

RUMASTIKA, N. S. FEBIANTI, Z. (n.d.). *Luas Perforasi Membran Timpani Berkorelasi Positif dengan Nilai Ambang Pendengaran Pasien Otitis Media Supuratif Kronik*.

SALSABILA NABILAH RIFDAH, N. (2019). *KARAKTERISTIK PENDERITA OMSK TIPE AMAN DISERTAI RINITIS ALERGI DI IRJ RSUD DR. SOETOMO SURABAYA PERIODE JULI 2017 DESEMBER 2017 (Penelitian Deskriptif Retrospektif)*. Universitas Airlangga.

UTAMI, N. F., & NASUTION, M. E. D. Y. S. (2021). GAMBARAN FAKTOR RISIKO DAN TERAPI MEDIKAMENTOSA PADA PASIEN OTITIS MEDIA SUPURATIF KRONIK TANPA KOLESTEATOMA DI RUMAH SAKIT HAJI MINA MEDAN TAHUN 2015 HINGGA 2019. *JURNAL ILMIAH MAKSITEK*, *6*(2), 51–58.

Widyasari, F. Ghanie, A. (2022). PENATALAKSANAAN OTITIS MEDIA SUPURATIF KRONIK DI FASILITAS KESEHATAN PERTAMA. *Conferences of Medical Sciences Dies Natalis*, *4*(1), 89–104.