WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Systemic Review of Homoeopathic Approach for Chronic Suppurative Otitis Media

Dr. Jagdish Thebar[1], Dr. Prachi Khuteta[2]

[1]Professor & H.O.D Practice of medicine, Swasthya Kalyan Homoeopathic Medical College and Research Centre, Jaipur Rajasthan, India.
[2]PG scholar, Practice of medicine, Swasthya Kalyan Homoeopathic Medical College and Research Centre, Jaipur Rajasthan, India.
Mail Id: thebarjagdish@gmail.com

ABSTRACT:

Chronic suppurative otitis media remains a prevalent condition in children and a major contributor to hearing impairments that impair language development and lifestyle complaints for young people [1].

As per study on otitis media the result shows the comparison with indigenous children in different regions ie; indigenous children in the US, Canada, Australia, New Zealand, and Northern Europe suffer from greater otitis media. Indigenous children still experience the most severe symptoms of the disease in some regions. There is a serious public health issue in communities where chronic tympanic membrane perforation affects more than 4% of the children (high-risk groups). There are also increased incidences of pneumonia, invasive pneumococcal illness, and chronic suppurative lung diseases, which includes bronchiectasis [2].

This article discusses the pathophysiology, epidemiology, and etiology of chronic suppurative otitis media, as well as its treatment options and potential long-term effects on school-age children [3].

Whereas Homoeopathy use holistic approach in treatment of chronic otitis media therefore, various rubrics are used to differentiate each case of chronic otitis media on basis of pathology, and individualistic character of the person affected with chronic otitis media.

Keywords – Otitis Media, Epidemiology, Pathophysiology, Homoeopathic treatment.

INTRODUCTION:

A collection of various inflammatory and infectious disorders affecting the middle ear is referred to as otitis media (otitis media) [4].

According to research, 80% of children should have had at least one episode of otitis media by the time they turn three (Teele et al., 1989). Epidemiology of otitis media during the first seven years of life in children in greater Boston. [5]

This indicates that Otitis media is extremely frequent in general. The two main types of Otitis media can be categorised as acute and chronic. [6]

Acute otitis media, an infection with rapid onset that typically manifests as ear pain, is one of the two primary types. This may cause straining at the ear, increased crying, and restless nights in young children .There may also be less eating and a fever. [7]

Otitis media with effusion is the other main type. It is usually asymptomatic, though on rare occasions a sensation of fullness is reported. otitis media effusion is defined as the presence of non-infectious fluid in the middle ear that can last for weeks or months, frequently following an episode of acute otitis media. [8]

Acute otitis media may develop into chronic suppurative Otitis media, which is marked by continuous middle ear discharge connected to a perforated ear drum, in spite of appropriate antibiotic therapy [9].

Acute otitis media, eustachian tube obstruction, mechanical trauma, chemical or thermal burns, blast injuries, and iatrogenic causes (such as following tympanostomy tube implantation) can all lead to chronic suppurative otitis media. Patients who have craniofacial anomalies (such as Down syndrome, cri du chat syndrome, cleft lip and/or palate, and 22q11.2 deletion, which is also known as velocardiofacial syndrome, Shprintzen syndrome, Shprintzen-Goldberg syndrome, and DiGeorge syndrome) are at a higher risk [10].

EPIDEMIOLOGY:

At the age of two, the incidence of otitis media with effusion is around 20% . Up until the age of seven, when the prevalence is between, it is still frequent.

globally in between 3% and 8% . otitis media typically goes away on its own after a median of three months . But around half of individuals who recover will experience another OME episode . For more than half of their first three years of life, almost one-fifth of children in the UK experienced either unilateral or bilateral otitis media effusion [11] .

ETIOLOGY:

Streptococcus pneumoniae is the most prevalent bacterial pathogen in acute otitis media, followed by **Moraxella (Branhamella) catarrhalis** and **nontypeable Haemophilus influenzae.**

Both viruses and bacteria can cause otitis media. The Eustachian tube is the tube that connects the middle ear to the throat. This tube allows the infection that originates in the back of your throat to move up to your middle ear when you have a cold. Fluid accumulation brought on by the middle ear infection presses against the eardrum.

Young children often have middle ear infections due to the lesser size of their Eustachian tubes, which makes them more susceptible to infection [12].

TYPES OF OTITIS MEDIA [13]:

I. **Acute otitis media (AOM)-** The most common meaning of "ear infection" is acute otitis media. The quick onset and brief duration of AOM are its defining features. AOM is mostly caused by viruses, although it can also be caused by bacteria (acute bacterial otitis media).

II. **Serous otitis media (SOM) or Otitis media with effusion (OME)**-SOM usually comes after an AOM episode. Fluid may accumulate from the irritated mucosal membrane temporarily without showing any symptoms of infection. A frequent paediatric condition known as "glue ear" is serous otitis media.

III. **Chronic otitis media with effusion**-Periodically, serous otitis media may progress to chronicity (lasting six weeks or more). If the fluid stays in the middle ear for an extended amount of time or keeps coming back, there isn't an infection. The fluid gets more viscous the longer it stays in the middle ear.

PATHOPHYSIOLOGY:

In developed nations, OM is often simple, self-limiting, and infrequently causes persistent hearing loss or developmental delays[14].

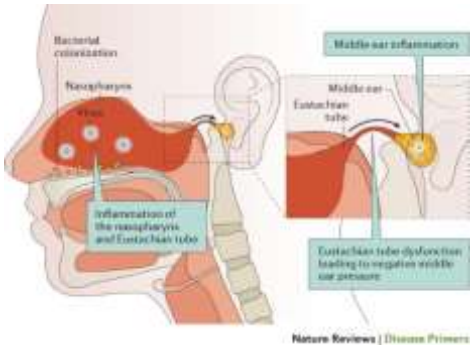
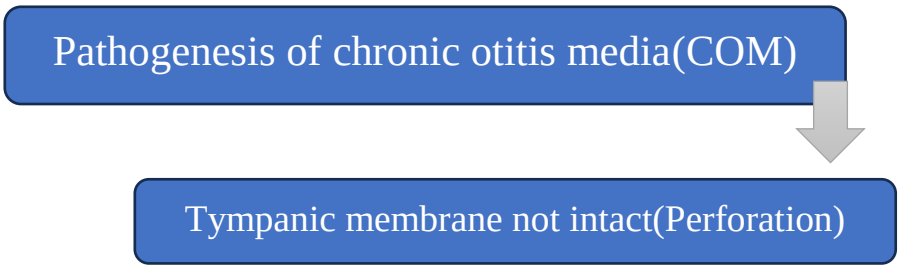


Fig1: Pathophysiology of Otitis media [15]

The middle ear experiences an inflammatory response that is followed by fibrosis and edema, a spontaneous tympanic membrane perforation, and persistent infection.

In addition, tympanostomy tubes used to treat otitis media with effusion may result in chronic suppurative otitis media [15].



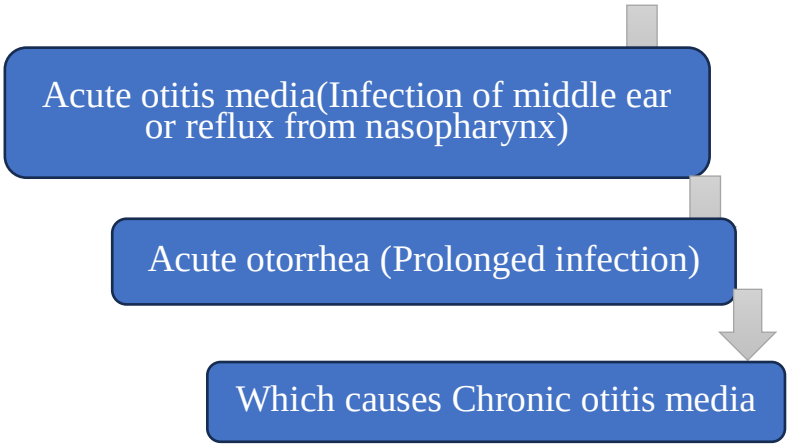


Fig 2: Mechanism of otits media [16]

CLINICAL FEATURES:

The primary signs and symptoms consist of:

- Earache
- High temperature (fever)
- Lethargy ,Dullness
- Mild hearing loss – if the middle ear becomes filled with fluid
- Discharges:-yellow brown or white drainage from ear(this mean your ear drum may be broken)[17]
- Irritability
- Headache
- Vomiting
- Diarrhea
- Otalgia
- Cough
- Rhinitis

In the event that you have ear drainage, avoid putting anything in your ear canal. More harm may result from an object contacting an eardrum that has been ruptured[18].

INVESTIGATIONS:

physical exam and an ear exam and by asking questions about past health.

Pneumatic otoscopy with tympanometry[19]

Hearing Test-. Children who have had fluid in one or both ears (otitis media with effusion) for a duration of three months are advised to undergo these tests. If a hearing loss is suspected, testing might be conducted sooner.

Tympanometry-It measures the eardrum's reaction to changes in internal ear pressure.

Tympanocentesis- If the fluid has remained behind the eardrum (chronic otitis media with effusion) or if the illness persists despite taking antibiotics, this test can remove it.

Blood test- Blood test needs to conducted to see if there is any immunity problems[20].

DIFFERENTIAL DIAGNOSIS:

It is important to take consideration other diseases that might present a clinical picture similar that of chronic suppurative otitis media.

- Cholesteatoma
- Petrositis
- Foreign body
- Sigmoid sinus thrombosis
- Otitic hydrocephalus
- Extradural abscess
- Meningitis
- Brain abscess
- Tuberculosis[21]

HOMEOPATHIC TREATMENT:

ACONITUM NAPELLUS-

Fever, severe attack with sudden stinging, tearing, throbbing pain. Very sensitive to noise, music is unbearable. External ear hot, red, painful, swollen. Earache, sensation as of drop of water in left ear.[22]

ARSENIC IODATUM-

Common Name-Iodide of Arsenic

Scrofulous ophthalmia. Otitis, with fetid, corrosive discharge. Thickening of tympanum, burning, acrid coryza.[22]

BELLADONNA-

Tearing pain in middle and external ear. Humming noises. Membrana tympani bulges and injected. Parotid gland swollen. Sensitive to loud tones. Hearing very acute. Otitis media. Pain causes delirium. Child cries out in sleep. Autophony- hearing one's own voice in the ear.[23]

CALCAREA CARBONICA-OSTREARUM-

Common name- Carbonate of lime

Scrofulous inflammation with muco-purulent otorrhea, and enlarged glands. Perversions of hearing: Hardness of hearing. Eruption on and behind ear. Cracking noises in ear. Sensitive to cold about ear and neck. [22]

CHAMOMILLA-

Common name-German chamomile

Ringing in ears. Earache, with soreness; swelling and heat driving patient frantic. Stitching pain. Ears feel stopped. [22]

MERCURIUS SOLUBILIS-

Pains extend to ear from teeth, throat, etc. Otorrhea thick yellow discharge, fetid and bloody. Deafness on becoming heated;> on swallowing and blowing nose. Boil in external canal. Sensation of cold water running from the ear, of coldness in ears, during pregnancy. [23]

PULSATILLA-

Common name- Wind flower

This remedy is often indicated for cases of otitis media with thick, yellowish-green discharge that may be accompanied by itching or burning sensations. Individuals who may benefit from Pulsatilla often feel better in open air and worse in warm rooms. Sensation as if something were being forced outward. Hearing difficult, as if the ear were stuffed. Otorrhoea . Thick, bland discharge; offensive odor. External ear swollen and red. Catarrhal otitis. Otalgia, worse at night. Diminishes acuteness of hearing. [22]

HEPAR SULPHUR-

Scurfs on and behind the ears. Discharges of fetid pus from the ears. Whizzing and throbbing in the ears, with hardness of hearing. Deafness after scarlet fever. Pustules in auditory canal and auricle.[22]

AURUM METALLICUM-

Obstinate fetid otorrhea. Nerve deafness, with embarrassed speech. Oversensitive to noise, but amel. Music. Ulcerated, painful swollen-caries; fetid discharge, purulent, bloody. [23]

MERCURIUS DULCIS-

Catarrhal affections of mucous membranes, especially of the eye and ear. Catarrhal inflammation of middle ear (Kali m.). Eustachian tube closed; catarrhal deafness and otorrhoea in psoric children; deafness of old age (Kali m.). Deafness and catarrhal affections of nares, throat, and pharynx, from mercurial amalgam
fillings. [24]

KALIUM BICHROMICUM-

This remedy is indicated for chronic otitis media with thick, stringy discharge that is difficult to remove. It may also be used when there is pain in the ear extending to the throat or when there are shooting pains in the ears.[24]

SILICEA-

Silicea is suitable for cases of chronic otitis media with discharge that is thin and offensive in nature. Individuals who may benefit from Silicea tend to have a weakened immune system and may feel chilly with a low tolerance for cold.[25]

References-

1. Rosario DC, Mendez MD. Chronic Suppurative Otitis. StatPearls Publishing; 2023.
2. 2. Morris PS, Leach AJ. Acute and chronic otitis media. Pediatr Clin North Am. 2009 Dec;56(6):1383-99. doi: 10.1016/j.pcl.2009.09.007. PMID: 19962027; PMCID: PMC7111681.
3. Rosario DC, Mendez MD. Chronic Suppurative Otitis. StatPearls Publishing; 2023.
4. (Dickson, 2014). Dickson G. (2014). Acute otitis media *Prim Care* 41 11–18 10.1016/j.pop.2013.10.002 . [PubMed] [CrossRef] [Google Scholar] [Ref list]
5. a prospective, cohort study *J Infect Dis* 160 83–94 10.1093/infdis/160.1.83 . [PubMed] [CrossRef] [Google Scholar] [Ref list]
6. Mittal R, Lisi CV, Gerring R, Mittal J, Mathee K, Narasimhan G, et al. Current concepts in the pathogenesis and treatment of chronic suppurative otitis media. J Med Microbiol [Internet]. 2015 [cited 2024 Mar 11];64(10):1103–16. Available from: http://dx.doi.org/10.1099/jmm.0.000155
7. Lieberthal AS, Carroll AE, Chonmaitree T, Ganiats TG, Hoberman A, Jackson MA, et al. (March 2013). "The diagnosis and management of acute otitis media". *Pediatrics*. **131** (3): e964–999. doi:10.1542/peds.2012-3488. PMID 23439909
8. Minovi A, Dazert S (2014). "Diseases of the middle ear in childhood". *GMS Current Topics in Otorhinolaryngology, Head and Neck Surgery*. **13**: Doc11. doi:10.3205/cto000114. PMC 4273172. PMID 25587371.
9. (Wintermeyer & Nahata, 1994; Harkness & Topham, 1998). Harkness P., Topham J. (1998). Classification of otitis media *Laryngoscope* 108 1539–1543 10.1097/00005537-199810000-00021 . [PubMed] [CrossRef] [Google Scholar] [Ref list]
10. Manuals MSD. The Ears. 2024.
11. Butler, C.C., Williams, R.G. The etiology, pathophysiology, and management of otitis media with effusion. *Curr Infect Dis Rep* **5**, 205–212 (2003). https://doi.org/10.1007/s11908-003-0075-x
12. Healthdirect Australia. Otitis media (middle ear infection). 2023 [cited 2024 Mar 12]; Available from: https://www.healthdirect.gov.au/otitis-media
13. Otitis Media: Types, symptoms & treatment [Internet]. Hear-the-world.com. [cited 2024 Mar 12]. Available from: https://www.hear-the-world.com/en/knowledge/hearing-loss/otitis-media
14. Rosenfeld RM, Kay D. Natural history of untreated otitis media. *Laryngoscope.* 2003;113:1645–1657. doi: 10.1097/00005537-200310000-00004. [PubMed] [CrossRef] [Google Scholar] [Ref list]
15. Rosario DC, Mendez MD. Chronic Suppurative Otitis. StatPearls Publishing; 2023.
16. [cited 2024 Mar 12]. Available from: http://file:///C:/Users/user/Downloads/Pathogenesis-of-Chronic-Otitis-Media%20(1).jpg
17. Middle ear infection (otitis media) [Internet]. NHS inform. 2023 [cited 2024 Mar 12]. Available from: https://www.nhsinform.scot/illnesses-and-conditions/ears-nose-and-throat/middle-ear-infection-otitis-media/

18. Kontiokari T, Koivunen P, Niemelä M, Pokka T, Uhari M. Symptoms of acute otitis media. Pediatr Infect Dis J. 1998 Aug;17(8):676-9. doi: 10.1097/00006454-199808000-00003. PMID: 9726339.
19. Ramakrishnan K, Sparks RA, Berryhill WE. Diagnosis and Treatment of Otitis Media. afp [Internet]. 2007 [cited 2024 Mar 12];76(11):1650–8. Available from: https://www.aafp.org/pubs/afp/issues/2007/1201/p1650.html
20. Stanford Health Care [Internet]. Stanfordhealthcare.org. 2018 [cited 2024 Mar 12]. Available from: https://stanfordhealthcare.org/medical-conditions/ear-nose-and-throat/otitis-media/diagnosis.html
21. Rosario DC, Mendez MD. Chronic Suppurative Otitis. StatPearls Publishing; 2023
22. Boericke W. Pocket manual of homeopathic materia medica & repertory. New Delhi, India: B Jain; 2023
23. Phatak SR. Materia Medica de Medicinas Homeopaticas. New Delhi, India: B Jain; 2006
24. Allen HC. Keynotes and characteristics with comparisons of some of the leading remedies of the materia medica. North Charleston, SC: Createspace Independent Publishing Platform; 2016.
25. Boericke W. The twelve tissue remedies of schüssler. Legare Street Press; 2022