



ROLE OF HOMOEOPATHY IN THE MANAGEMENT OF OTITIS MEDIA

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ABSTRACT

Otitis media is a multi-factorial disease that is characterized by inflammation of middle ear. It is one of the most common causes of hearing impairment worldwide. It can be classified into acute, with effusion and chronic based on the aetiology of the disease. Homoeopathy can be a good alternative in management of otitis media instead of the traditional antibiotic and surgical method of treatment.

Keywords: Homoeopathy, Inflammation, Otitis media, Middle ear

INTRODUCTION

Otitis media (OM) is the inflammation of middle ear cleft which is accompanied by effusion of fluids caused by the presence or absence of perforation in tympanic membrane.^[1] It is a spectrum of diseases that comprises of acute otitis media, otitis media with effusion (also known as “glue ear”) and chronic suppurative otitis media.^[2]

Acute otitis media (AOM) is an acute form of otitis media which is characterized by inflammation and presence of fluid in the middle ear. The symptoms include acute ear pain, fever and distress. It is self-limited and usually resolves within 14 days.^[3]

Otitis media with effusion (OME) is an inflammatory condition characterized by non-purulent effusion behind the tympanic membrane without any signs or symptoms of acute infection. The main symptom of OME is a conductive hearing loss caused by the impaired transduction of sound waves in the middle ear due to the effusion.^[2]

Chronic suppurative otitis media (CSOM) is the chronic inflammation of the middle ear and mastoid cavity characterized by the recurrent or persistent ear discharge through a tympanic membrane perforation. The chief symptoms of CSOM are conductive hearing loss and ear discharge, which may be offensive.

Otitis media is one of the main causes of hearing impairment worldwide. The global prevalence of otitis media is less common in adults but more common in children and infants. Approximately 80% of all children will experience an incidence of otitis media during their lifetime.^[4] The worldwide incidence of AOM is 51% and of CSOM is 22.6% in children under five years of age.^[3]

Aetio-Pathophysiology:

Otitis media is a multi-factorial disease and various factors like infectious, genetic and environmental may aid the development of otitis media.

The major risk factors are:

- Bacterial infection from *Streptococcus pneumoniae*, *Haemophilus influenzae* and *Moraxella catarrhalis*.
- Viral pathogens like influenza virus, rhinovirus, adenovirus, respiratory syncytial virus.
- Genetic pre-disposition
- Decreased immunity
- Nasal Allergies
- Passive smoke exposure
- Lower socio-economic status

Otitis media is transmitted via direct physical contact with an infected person or object, as well as by respiratory droplets in saliva or mucus.^[3] It is usually associated with upper respiratory conditions caused by the nasopharynx pathogen. Congestion brought on by the mucus in middle ear causes dysfunction of the eustachian tube. The changes in the inner ear's pressure regulation results in the fluid effusion into the tympanic cavity, where the naso-pharyngitis pathogen is present. Thus, the inflammatory reaction to the infection leads to otitis media.

CLINICAL FEATURES

The main symptoms of otitis media are:

- Ear pain
- Fullness in ear
- Discharge from ear
- Hearing loss
- Fever, nausea/vomiting, disturbed sleep, anorexia and irritability are the other common signs/symptoms.

On otoscopic examination of the ear, the following signs may be seen:

- Bulging, opaque or cloudy appearance of the tympanic membrane
- Erythema of middle ear
- Presence of fluid
- Perforation of tympanic membrane
- Immobility of the tympanic membrane

INVESTIGATIONS

Otoscopy- It is the most suitable way of visual examination of the ear canal and tympanic membrane. Pneumatic otoscopy is also done to see the mobility of the tympanic membrane in response to the pressure changes in the ear canal with the help of otoscope.

Tympanometry- It is a test that examines the condition of the middle ear, the mobility of the eardrum, and the conduction bones by creating variations of air pressure in the ear canal. A tympanometer is inserted into the ear canal that produces a pure tone, which alters the pressure inside the ear and then it monitors how the eardrum reacts to the sound at various pressures.

Acoustic reflectometry- It is a method of assessing the probability of middle-ear fluid by an instrument emitting a sound frequency spectrum sweep to the tympanic membrane and then analysing the intensity and frequency of the reflecting sound.

Computerised tomography- It is used to scan the temporal bone to identify the extent of bone destruction, mastoiditis, cholesteatoma and other complications.

COMPLICATIONS

The intra-cranial and the intra-temporal complications of otitis media due to the spread of infection or damage to the tympanic membrane are:

- Meningitis
- Brain abscess

- Mastoiditis
- Cholesteatoma
- Tympanosclerosis

MANAGEMENT

Conventional management

The initial method of treatment includes the antimicrobial or the antibiotic therapy. Surgical methods include myringotomy with or without ventilation tubes, tympanotomy and adenoidectomy depending upon the causative factor.

Homoeopathic Management

Homoeopathy is a system of medicine which works on the principle of *Similia Similibus Curentur*. It is a holistic approach based on the totality of symptoms and individualization. There are various homoeopathic literature that suggests many homoeopathic medicines effective in otitis media. The American Academy of Publications published a guideline on the diagnosis and management of otitis media in children stating that homoeopathic remedies as possible treatments for reducing otalgia, with the admonition that there are limited data on their usefulness in children with otitis media.^[5]

REPERTORIAL APPROACH

Boericke Repertory:

EARS- EUSTACHIAN TUBES (catarrh or closure): Kali mur., Merc. d., Puls.

Eustachian tube inflamed, sub-acute, great pain: Bell., Caps.

EARS- TYMPANUM (middle ear): Inflammation (otitis):

Catarrhal, acute: Aconite, Bell., Kali mur, Merc., Puls.

Catarrhal, chronic: Bar.Mur., Iod., Kali mur.

Suppurative, acute (otitis media suppurative, acute): Bell., Cham., Hep., Plan., Puls.

Suppurative, chronic: Calc., Kali-bi., Puls., Sil.

Kent's Repertory:

EAR- INFLAMMATION, suppurative: Arn., caps.

EAR- INFLAMMATION, eustachian tube: Kali-s., Puls., Sil.

EAR- INFLAMMATION, media: Cham., Kali-bi., Merc-d., Puls., Sil.

EAR- SUPPURATION, middle ear: Calc. sulph., Hep., Kali-bi., Merc., Puls.

Murphy's Repertory:

Clinical/Ears- OTITIS, media, infection, middle ear: Bell., Cham., Hep., Kali-bi., Merc-D, Puls.

Clinical/Ears- OTITIS, acute: Bell., Cham., Puls.

Clinical/Ears- OTITIS, chronic: Kali-S, Merc., Sil.

HOMOEOPATHIC THERAPEUTICS

Belladonna- Tearing pain in middle and external ear. Membrane tympani bulges and injected. Otitis media. Pain causes delirium. Child cries out in sleep; throbbing and beating pain deep in the ear, synchronous with the heartbeat. Acute and sub-acute conditions of the eustachian tube.

Chamomilla- Otolgia with soreness; swelling and heat, driving the patient frantic. Stitching pain. Ear feels obstructed.

Hepar sulphur- Catarrhal affections of the ear. Discharge of fetid pus from the ears. Whizzing and throbbing in ears, with hardness of hearing. Darting pain in the ears.

Kali bichromicum- Ears swollen, with tearing pains (otitis). Thick, yellow, stringy, fetid discharge. Sharp stitches in the left ear.

Kali muriaticum- Chronic catarrhal conditions of the middle ear (otitis media). Glands around the ear swollen. Snapping and noises in the ear.

Merc dulcis- Otitis media, closure of the Eustachian tube, ear problems in scrofulous children, membrane tympani retracted, thickened and immovable.

Plantago major- Sticking pain in the ears. Neuralgic otalgia; pain goes from one ear to the other through the head. Otalgia with toothache.

Pulsatilla- Sensation as if something was being forced outwards. Hearing difficult as if the ear is stuffed. Otorrhoea. Thick, bland discharge with offensive odor. Catarrhal otitis. Otalgia worse at night. Diminished acuteness of hearing.

Silicea- Fetid discharge. Caries in the mastoid. Loud pistol like retort. Sensitive to noise. Roaring in ears.

Tellurium metallicum- Catarrh of the middle ear (otitis media), discharge acrid, smells like fish pickle. Itching, swelling, throbbing in the meatus. Deafness.

CONCLUSION

Otitis media is one of the major health concerns in childhood as well as in the adult life. It has a negative impact on the patient's quality of life as it is significantly associated with hearing impairment. Since the conventional treatment methods mostly depend on the antibiotic therapies and surgical procedures which could be a serious burden to the health and socio-economic status of the patient, Homoeopathy can be a turning-point in the management of otitis media as it treats the patient as a whole, not just the disease, in the most easy and harmless way. Further more research studies and clinical trials are suggested to enhance the role of homoeopathy in the management of otitis media.

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