

Otitis Media and Homoeopathic Management

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Abstract: Otitis media (OM) or middle ear inflammation is a spectrum of diseases, including acute otitis media (AOM), otitis media with effusion (OME; 'glue ear') and chronic suppurative otitis media (CSOM). OM is among the most common diseases in young children worldwide. Although OM may resolve spontaneously without complications, it can be associated with hearing loss and life-long sequelae. In developing countries, CSOM is a leading cause of hearing loss. OM can be of bacterial or viral origin; during 'colds', viruses can ascend through the Eustachian tube to the middle ear and pave the way for bacterial otopathogens that reside in the nasopharynx. Diagnosis depends on typical signs and symptoms, such as acute ear pain and bulging of the tympanic membrane (eardrum) for AOM and hearing loss for OME; diagnostic modalities include (pneumatic) otoscopy, tympanometry and audiometry. ^[1]

Keywords: Otitis media (OM), Acute otitis media (AOM), Acute suppurative otitis media (ASOM), Chronic suppurative otitis media (CSOM), eustachian tube

1. Introduction

Otitis media is inflammation or infection located in the middle ear. Otitis media can occur as a result of a cold, sore throat, or respiratory infection. ^[2]

Middle ear infections are usually a result of a malfunction of the eustachian tube, a canal that links the middle ear with the throat area. The eustachian tube helps to equalize the pressure between the outer ear and the middle ear. When this tube is not working properly, it prevents normal drainage of fluid from the middle ear, causing a buildup of fluid behind the eardrum. When this fluid cannot drain, it allows for the growth of bacteria and viruses in the ear that can lead to acute otitis media. ^[3]

The following are some of the reasons that the eustachian tube may not work properly:

- A cold or allergy which can lead to swelling and congestion of the lining of the nose, throat, and eustachian tube (this swelling prevents the normal drainage of fluids from the ear)
- A malformation of the eustachian tube ^[2]

Middle ear infections are the most common childhood illness other than colds. Ear infections occur most often in children between 6 months and 2 years. They're common until age 8 as their Eustachian tubes don't function as well as adults and this encourages fluid build up behind the ear drum and their immune system is still developing. ^[3]

Older children and adults can also get ear infections, too, but they don't happen as nearly as often in young children. ^[3]

Types of otitis media:

- **Acute otitis media:** This middle ear infection occurs abruptly causing swelling and redness. Fluid and mucus become trapped inside the ear, causing the child to have a fever and ear pain.
- **Otitis media with effusion:** Fluid (effusion) and mucus continue to accumulate in the middle ear after an initial infection subsides. The child may experience a feeling of fullness in the ear and it may affect his or her hearing or may have no symptoms.
- **Chronic otitis media with effusion:** Fluid remains in the middle ear for a prolonged period or returns again and again, even though there is no infection. May result in

difficulty fighting new infection and may affect the child's hearing. ^[2]

2. Symptoms

The following are the most common symptoms of otitis media. However, each child may experience symptoms differently. Symptoms may include: ^[2]

- Unusual irritability
- Difficulty sleeping or staying asleep
- Tugging or pulling at one or both ears
- Fever, especially in infants and younger children
- Fluid draining from ear (s)
- Loss of balance
- Hearing difficulties
- Ear pain

3. Causes

The common cause of all forms of otitis media is dysfunction of the Eustachian tube. This is usually due to inflammation of the mucous membranes in the nasopharynx, which can be caused by a viral upper respiratory tract infection (URTI), strep throat, or possibly by allergies.

By reflux or aspiration of unwanted secretions from the nasopharynx into the normally sterile middle - ear space, the fluid may then become infected – usually with bacteria. The virus that caused the initial upper respiratory infection can itself be identified as the pathogen causing the infection. ^[4]

4. Diagnosis

In addition to a complete medical history and physical examination, inspection of the outer ear (s) and eardrum (s) using an otoscope is done. The otoscope is a lighted instrument that allows the visibility of the inside the ear. ^[2]

A pneumatic otoscope blows a puff of air into the ear to test eardrum movement.

Tympanometry is common test that can be performed to help determine how the middle ear is functioning. It does not tell if the child is hearing or not, but helps to detect any changes in pressure in the middle ear. This is a difficult test

to perform in younger children because the child needs to remain still and not cry, talk, or move. [2]

In more severe cases, such as those with associated hearing loss or high fever, audiometry, tympanogram, temporal bone CT and MRI can be used to assess for associated complications, such as mastoid effusion, subperiosteal abscess formation, bony destruction, venous thrombosis or meningitis. [2]

Homoeopathic therapeutics: [5]

Aconite

Earache and inflammation of ear. Aggravation at night, pain extremely severe, and extreme sensitiveness to noise, roaring in ears, music unbearable, child restless, anxious; external ear hot and red, meatus red and narrowed, painfully sensitive, temperature and pulse high, respiration hurried, burning skin and thirst.

Calcarea carbonica

OTITIS EXTERNA, SUPPURATION in scrofulous parsons; dermoid layer of membrana tympani destroyed by ulceration and covered with exuberant granulations which may fill the meatus; POLYPUS OF EAR; humming, roaring, buzzing in ears from abnormal pressure on the bones of the ear; pain in internal ears, first right then left, aggravation extreme heat or cold, blowing nose or coughing; muco - purulent otorrhoea, sometimes offensive; deafness from Eustachian catarrh; painful inflammatory swelling of parotids; corrosive nasal discharge, glandular swellings; fistulous ulcers. (Silicea follows well.)

Hepar sulphuris

EXTREME SENSITIVENESS TO CONTACT; dread of contact, out of proportion to the actual pain; canal filled with white, cheesy, bloody pus, and surrounding skin scurfy and irritated; little pustules in the meatus and auricle, wherever the pus touched; haemorrhage from the slightest touch; relief from hot applications, cannot bear anything cold; cracking in ears when blowing nose; obstinate purulent and offensive discharge.

Kali muraticum

Chronic catarrhal inflammation (proliferous) at middle ear; mucous membrane pale and thin, secreting white, tough, mucus, and a similar secretion is exuded from posterior nares; stuffy sensation in ears and nares; deafness and hardness of hearing from swelling and catarrh of Eustachian tube and middle ear. (Kali phos., dark, foetid pus; Kali sulph., yellow, sticky.).

Kali sulphuricum

Muco - purulent, yellow, sticky discharge from inflamed ear; deafness from catarrh and swelling of Eustachian tube and middle ear; polypoid excrescences close the meatus near the opening.

Merc dulcis

Otitis secondary to exanthemata, and in scrofulous and syphilitic patients; pain in ear, extending to face and teeth, worse by the heat of bed; excoriation and ulceration of meatus; sensitive to cold; abundant secretion of cerumen or

flow of pus and blood; sweating, without relief, occurring from cold, when there are hypertrophied tonsils or disease parotids; pulsative roaring in the affected part; ulceration of the membrana tympani, which bleeds from the slightest touch; constant cold sensation in the ears; ulceration of concha; fungous growth in meatus; swelling of parotid; deafness relieved by blowing the nose.

Mercurius - solubilis

Otitis secondary to exanthemata, and in scrofulous and syphilitic patients; pain in ear, extending to face and teeth, worse by the heat of bed; excoriation and ulceration of meatus; sensitive to cold; abundant secretion of cerumen or flow of pus and blood; sweating, without relief, occurring from cold, when there are hypertrophied tonsils or disease parotids; pulsative roaring in the affected part; ulceration of the membrana tympani, which bleeds from the slightest touch; constant cold sensation in the ears; ulceration of concha; fungous growth in meatus; swelling of parotid; deafness relieved by blowing the nose.

Pulsatilla

Otitis externa; heat, redness, lancinating pains and sensation as if something were crawling out of the ear; remissions followed by exacerbations of intense pain, noises and buzzing in ears; sensation of a plug in ear and defective hearing; otorrhoea, with redness and pain, pressure through ear, with ear, with free formation of crusts in meatus; otalgia, with darting tearing pain and pulsating at night, with bland, nearly inoffensive, greenish discharge of mucus and pus; better out - doors and during day; scabs on tragus; otorrhoea alternating with difficult hearing; after measles.

Silicea

Caries of mastoid cells; offensive, watery curdy otorrhoea, with soreness of inner nose and crusts on upper lip; itching in Eustachian tube and in ears; the child bores into its ears when asleep, causing a discharge of blood and pus; sudden stopped feeling in ears, passing off when yawning or swallowing; ulceration of the tympanum, with itching and sharp stinging pains; the child seems to enjoy having the ears cleansed with the cotton probe; sounds in ears like the ringing of bells; otalgia from within outward; slow painless swelling and suppurating of parotid.

Tellurium

OTITIS MEDIA WITH RUPTURE OF TYMPANUM, pouring out pus which at first maybe fair, but afterwards becomes offensive, smelling like fish brine; membrana tympani irregular, thickened in parts, thin in other portions; vesicular eruption on membrane, then suppuration and perforation; whatever discharge touches becomes excoriated and little vesicles appear on excoriated surface; ear bluish - red, as if oedematous; hearing impaired; sensation as if something suddenly closed up the ear, as if air whistled through left Eustachian tube, when snuffing or belching; throat dry and sore, amelioration by eating and drinking.

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