

BIBLIOGRAPHIC REVIEW OF CHRONIC OTITIS MEDIA IN PEDIATRIC AGE GROUP

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Abstract

Prevalence of otitis media to be 9.2% (54/ 587) in children 0-5 years old. ^[1] which shows there are multiple risk factors of incidence of Chronic Otitis media in pediatric age group. The factors for high incidence of Chronic Otitis media in pediatric age group, the variation in clinical presentation in cases of Otitis media and the factors that allow acute infections within the middle ear and mastoid to develop into chronic infection is on account of morbid susceptibility. There is a need for the basic conceptual understanding of chronic media otitis in the perception of states of susceptibility, and the correlation between susceptibility (which is qualitative) and its role in the evaluation of the disease phenomenon, treatment as well as expression of susceptibility in clinical presentation of chronic Otitis media which is the need of time.

Keywords: Chronic Otitis Media, Susceptibility, Clinical Presentation of Otitis.

INTRODUCTION

Chronic Otitis media is defined as chronic inflammation of the middle ear and mastoid cavity, which presents with recurrent ear discharge through the tympanic membrane and is the main cause of hearing impairment in developing countries.

A study by Sophia et al. of preschool children in rural India provided population-based data from a relatively large sample of 800 children and found the prevalence of otitis media to be 9.2% (54/ 587) in children 0-5 years old. ^[1] There are multiple risk factors associated with development of the disease in the age group of 2-15 yrs. ^[2]

Varied clinical presentation of the chronic otitis media ranges from Otagia chronic Otorrhoea, irreversible destructive changes with intra and extra cranial complications and with a progressive auditory dysfunction leading to communication problem and social withdrawal. This not only affects the growth but also development of the child.

The factors for high incidence of Chronic Otitis media in pediatric age group, the variation in clinical presentation in cases of Otitis media and the factors that allow acute infections within the middle ear and mastoid to develop into chronic infection is on account of morbid susceptibility.

There is a need for the basic conceptual understanding of chronic media otitis in the perception of states of susceptibility, and the correlation between susceptibility (which is qualitative) and its role in the evaluation of the disease phenomenon, treatment as well as expression of susceptibility in clinical presentation of chronic Otitis media which is the need of time.

REVIEW OF LITERATURE

According to Dr. H. A. Roberts and Dr. J. H. Allen, suppressive treatments for ear discharge ends up with great suffering to the patients. Pathogenesis of acute otitis media is well studied but limited research is available in relation to CSOM. ^[5]

The fundamentals of Homoeopathic posology are represented in the trinity of

- a) Single remedy
- b) Minimum dose
- c) Minimum repetition

It was discussed that “patient exhibits maximum susceptibility to the Similimum “.so the physician has to accurately assess the susceptibility in a patient before he selects the right potency.

According to Dr M L Dhawale Sir’s concept of Posology mentioned under chapter 16. “Homoeopathic Posology” give the right guidelines in selection of potency in chronic conditions of chronic media otitis.

In book ‘Pocket Manuel of Homoeopathic Materiamedica’ written by Dr.Boericksmentions Graphitis for thin, white, scaly membrane covering membrane tympani, like exfoliated epithelium. In his book of “ The Twelve Tissue Remedies of Schusler”,it was indicated in moist exfoliation of epithelial layer of the tympanic membrane; also for retraction of tympanic membrane.

C Hering published the book ‘Guiding symptoms’ says that Graphites is indicated when tympanic membrane is not perforated. Kali. bich is indicated in chronic suppuration with membrana tympani perforated, cicatrization of edges of perforation complete; tissues appear as if changed to mucous membrane, and secretion is often more mucus than pus, discharge yellow, thick, tenacious, so that it may be drawn through perforation in strings and ulcerations on tympanum, dry but not painful, excepting sharp stitches. Mezerium has peculiar sensation of air was pouring into ears, as if tympanum was exposed to cold air. Capsicum is indicated for itching pain very deep in ear. Tympanum perforated, and cavity filled with thick, yellow pus. Kali.iod is indicated for otitis in rickety children with great tenderness of head.

In book ‘The Homoeopathic treatment for children’ by Dr.Hercue P describes that calcarea carb indicated in scarring and sclerosig of the tympanic membrane, causing mild to severe deafness.lycopodium is indicated in tympanic membrane rupture and yellow, thick discharge with a strong odor

In his book of Dr.Hughes titled ‘Manuel or pharmacodynamics’ says conjunctive in the dermic layer is analogous to the tympanic membrane.similary eyelids and auricles, cerumen and tears and analogous. Both orbicular and auricular muscles are accordingly supplied by the facial nerve-the nerve of emotional expression. In the lower animals, as is well known, the auricular muscles have sufficient power to direct the ears towards the point from which the sound proceeds. In the eye this duty is performed by the recti and obliqui muscles of the eyeball.

Samuel Lilienthal explains in his work Homoeopathic therapeutics mentions carboanimalis and carbo veg for chronic non suppurative otitis media and tellurium for otitis with tympanic membrane perforation. Membrane is thickened in parts, thin in other parts.Vesicular eruptions on membrane, suppuration and then perforations. Fish brine odor of ear discharge is characteristic. Ant.crud, for moist eruption on external ear and behind it; scrofulous otorrhoea; chronic catarrhal otitis media with heat and tension, aggravation by heat. Capsicum is indicated for suppurating otitis with itching deep in the ear.

Similar work of Dr.Robin Murphy described in his work ‘Homoeopathic remedy guide’ mentions verbascum Thapsus in chronic suppurative disease of the tympanum or in

accumulations of debris in the case of perforation, scarred eardrum. It acts to dislodge accumulations, free the ossicles from pressure and thereby improves the hearing. This process goes on for months until the tympanum has thrown out an amount of debris that is surprising.

In his book 'Handbook of materia medica and therapeutics' written by Dr.T.F.Allens mentions Ars.iod for otitis with fetid corrosive discharge, chronic irritability of the middle ear following scarlet fever and thickening of tympanum

Dr. William Boericke explained In book 'Pocket Manuel of Homoeopathic materia medica' describes Ars. Iod for Otitis, with fetid, corrosive discharge and thickening of tympanum. Lapis albus is also indicated in suppurative otitis media. Methelynumcoeruleum is a medicine suggested , 2% solution locally in chronic otitis with foul smelling discharge. Skookum chuck aqua is another medicine for otitis media which has strong affinity for skin and mucous membranes -An anti-psoric medicine and profuse, ichorous, cadaverously smelling discharge. Thiosinaminum is for subacutesuppurative otitis media, formation of fibrous bands impeding free movement of the ossicles with thickening of ear drum. In relationship section of medicine viola odorata , chenopodium is mentioned for chronic otitis media, progressive deafness to the voice, but sensitive to sounds of passing vehicles and other sounds; buzzing; absent or deficient bone conduction; a consciousness of the ear; hearing better for shrill, high-pitched sounds than for low ones. In another work by William Boericke, 'The twelve tissue remedies of schussler', silicea is mentioned for suppurative otitis when discharge is thin, ichorous, and offensive and attended with bone destruction.

In book 'children's types' by Dr.Borland D.M. says, graphitis children are are liable to get a very persistent purulent nasal discharge, a chronic otitis with a perforation of the drum, and again the same kind of yellowish excoriating discharge, with an irritating eczema of the external ear whenever the discharge runs over. Thuja children are liable to chronic otitis media, and may develop mastoiditis with very severe and localized pain, and tenderness over the mastoid region. If they are old enough they will tell you it feels as if something were being bored into the mastoid bone

Borland mentions Kali.sulph in his book 'Homoeopathy in practice'. Kali Sulph is one of the most frequently indicated drugs in chronic otitis media, with typical yellow irritating discharge

Dr. Burt W.H. said in 'Physiological Materia medica' suggests calc.carb for chronic otitis in scrofulous children, with much mucopurulent discharge; noises; deafness, and sputtering sound in the ears. Hepar.sulph is indicacated for copious discharge of pus from the ears; chronic otitis, the discharge always produces excoriation. Nat.mur for chronic catarrhal otitis, with acrid discharges

Dr. Clark J H authored a book in which 'Dictionary of practical materia medica' says deafness, otitis, and glandular swellings about the ears often require Mur.acid

Dr. Degroote F In his book 'Physical Examination and Observation in Homoeopathy' mentions an interesting point about calc.sulph -Otitis media after a slap on ear or from a bad dive into wate

In work of Deway W A of 'Practical Homoeopathic Therapeutics' quotes moffat's statement about kali.mur "The most valuable single remedy for the deafness following

purulent or catarrhal otitis media". Psorinum is another remedy for chronic otitis media probably of psoric origin, in which other remedies and methods of treatment have been tried unsuccessfully.

Dr. Farrington E A explains In book 'Lessor Writings' says telluriun is used after bell in otitis media¹⁰³. In another work 'Clinical Materia Medica', Farrington explains pulsatilla in otitis media "it is useful when there is a profuse thick yellow or yellowish-green discharge from the ear"

Dr. Julian O A titled in the book 'Materia Medica of New Homoeopathic Remedies' points out Arg.met for subacute otitis, Flavus for frequent attacks of otitis. In book 'Materia Medica of Nosodes with Repertory' mentions Mucor Mucedo for chronic otitis dragging supporting, streptococcinum and bacillus streptoenterococcus for acute or chronic otitis.

Dr. Farook J Master titled a book 'Tubercular miasm' Tuberculins makes a differentiation of 2 remedies Tuberculinum Koch for otitis media with persistent foul smelling secretion from ear and tuberculinum aviare for otitis media with slow onset and difficult hearing

In book 'Materia Medica and Clinical Therapeutics' titled Peterson F J suggests Gelsemium tincture for aborting rupture of ear drum, 5-10 drops hourly until relieved, and then in smaller dose at large intervals

Dr. Rue C G explained In 'Diseases of Children' points out an observation, scarlet fever may leave nephritis or CSOM. Prognosis of otitis in children depends of constitution and general health at the time the disease is contracted and nature of causing infection. Otitis due to complication of simple rhino pharyngitis or influenza is not grave as those complicating scarlet fever (streptococcus), pneumococcus or diphtheria

Dr. HA Roberts said In book 'Study of Remedies by Comparison' gives Nat.carb with indication-chronic catarrha, chronic otitis media agg. before menses.

Dr. Royal G said in his work 'Textbook of Homoeopathic Materia Medica' says medicine for over dose of mercury in cases of otitis is Hepar.sulph.

Dr. Santwani M T described In his book 'Common Ailments of Children' says, "Constitution plays an important role in the occurrence of diseases of the ear like otitis media. It has been found that in children with a constitutional disturbance provoked by rickets, hypotrophy and exudative diathesis; the disease may be prolonged and may produce frequent recurrence and complications". Pseudopsoric or tubercular children are more prone to various organic and suppurative diseases of ear. These children may develop aural abscess with discharges often with carrier like odor. Such children are very sensitive to cold air

Hahnemannian classification of disease for CSOM:

From **Essays on Organon-B.K Sarkar** comes as dynamic chronic miasmatic disease with fully developed symptoms – miasm tubercular due to the reference of suppurative tendencies.

According to Hahnemann chronic d/s means "they are diseases of such a character that, with small, often imperceptible beginnings, dynamically derange the living

organism, each in its own peculiar manner & cause it to deviate from the healthy condition in such a way that the automatic life energy, called vital force, whose office is to preserve the health, only opposes to them at the commencement and during their progress, imperfect, unsuitable, useless resistance, but must helplessly suffer itself to be more and more abnormally deranged, until at length the organism is destroyed ; these are termed chronic diseases. They are caused by infection from a chronic miasm⁷." It can also occur due to difference in manner of living and diet⁸. According to Hahnemann suitable, nutritious, un medicinal food & drink to be used during the treatment of chronic d/s (aphorism 261 of Organon of medicine) **Hahnemann Samuel, 2005, Organon of medicine, 5th edition with additions from 6th, B Jain publishers P Ltd, Reprint edition, aphorism 72, page no 66.**

Dr.Vithoukasmentions In book 'Talks on Classical Homoeopathy' thatstramonium for basilar meningitis from suppressed otitis media¹¹

DISCUSSION

From all book reviews and studying about the cronic media otitis researcher understands and summarise the following things which are explained in tabular format as below,

Table no 1: Clinical Presentation of COM

Sr No	Symptoms	No Of Cases
1	Otalgia	62
2	itching	40
3	otorrhoea-serous	17
4	otorrhoea-watery	25
5	otorrhoea -blackish/bloody	22
6	otorrhoea-greenish	53
7	otorrhoea-sticky	61
8	otorrhoea-offensive	46
9	otorrhoea-non-offensive	50
10	fullness in the ear	59
11	hearing impaired	32
12	Conductive deafness	32
13	sensori-neural deafness	3
14	Autophony	31
15	Vertigo	17
16	mastoid swelling	8
17	mastoid tenderness	12
18	Tinnitus	11
19	H/O URTI	62
20	turbinates' swollen	26
21	H/O Tonsillitis	32
22	H/O Adenoids	14
23	H/O-LRTI	14

(Source:Secondary Data /Review of Literature)

Table no 2: Constitutional Remedy Understood from Material Medica

Sr No	Constitutional Remedy	No of Cases
1	Silicea	18
2	Calciod	11
3	Lycopodium	10
4	Calc Carb	9
5	Kali-Bich	8
6	CalcPhos	6
7	Nat-Mur	5
8	Phosphorus	4
9	Merc.Sol	4
10	Pulsatilla	4
11	Carcinosin	2
12	Kalicarb	2
13	Nat.Sil	2
14	Nat.Sulph	2
15	Calc.Flour	1
16	Calc.Sulp	1
17	Calc.Sil	1
18	ArsAlb	1
19	Sulphur	1
20	Mag.Carb	1
21	Mag Mur	1
22	Sepia	1
23	Tuberculinum	1
	Total	96

(Source:Secondary Data /Review of Literature)

Table No 3: Susceptibility Correlation

Sr no	Susceptibility Correlation	Correlation
1	High	<ul style="list-style-type: none"> ➤ Sudden onset, slow progress ➤ Years of onset in these cases were around puberty ➤ Good number of characteristic symptoms
2	Low to high	<ul style="list-style-type: none"> ➤ Moderate reactivity ➤ Gradual progress ➤ Few characteristic symptoms
3.	Low	<ul style="list-style-type: none"> ➤ Poor reactivity ➤ Fast Progress ➤ Less Characteristic Modality

Table No 4: Fundamental Miasm Correlation

Sr no	Fundamental Miasm	Correlation
1	TUBERCULAR	<ul style="list-style-type: none"> ➤ Affected Progress of disease and its clinical features ➤ Sudden onset of ear discharge ➤ Pathology progress was rapid
2	SYCOTIC	<ul style="list-style-type: none"> ➤ Onset was gradual ➤ Took long time to progress
3	PSORA	<ul style="list-style-type: none"> ➤ Showed oversensitivity to touch ➤ Whitish and non-offensive discharge ➤ Short duration

Table No 5: Dominant Miasm Correlation

Sr no	Dominant Miasm	Correlation
1	SYCOSIS	➤ Discharges showed sensitivity to external factors like cold weather, change of weather, cold food Offensive, sour smell
2	TUBERCULAR	➤ Sticky, offensive, bloody with Itching in ears

Table No 6: Symptom Correlation

Sr no	Symptom
1	Characteristic Mental Concomitant
2	Characteristic Physical General Concomitant
3	Characteristic physical Particular < Modality
4	Characteristic Physical Particular > Modality
5	Characteristic Causative Modality
6	Characteristic Physical Particular Sensation

CONCLUSION

Disease is a modification in the state of health in which Susceptibility, sensitivity and the environmental circumstances play the roles. and the variation in it we owe to the individual susceptibility and sensitivity of an altered type.

Thus, a need for the basic conceptual understanding of states of susceptibility, and the correlation between susceptibility (which is qualitative) and its role in the evaluation of the disease phenomenon, expression of susceptibility in clinical presentation of chronic Otitis media is the need of time.

References

- 1) Rodrigo De Antonio, Juan- Pablo Yaezabal, James Philip Cruz, Johannes E. Schmidt, Jos Kleijnen; Epidemiology of otitis media in children from developing countries: A systematic review, Int. J. Pediatr. Otorhinolaryngology 85 (2016) 65-74 published by Elsevier Ireland Ltd. A. Sophia, R. Isaac, G. Rebekah, K. Brahmadathan, V. Rupa, Risk factors for otitis media among Pre-school, rural Indian children, Int. J. Pediatr. Otorhinolaryngology .74 (2010) 677-683.
- 2) Zhang Y, Xu M, Zhang J, Zeng L, Wang Y, et al. (2014) Risk Factors for Chronic and Recurrent Otitis Media—A Meta-Analysis. PLoS ONE 9(1): e86397. doi: 10.1371/journal.pone.0086397. Editor: Franklin D. Lowy, Columbia University, College of Physicians and Surgeons, United States of America
- 3) Stuart Clause. The genius of Homoeopathy. Lectures and Essays on Homoeopathic Philosophy. Reprint Edition 1996, B Jain Publishers, Chapter VII Susceptibility, Reaction and Immunity, 76.
- 4) Dr M.L. Dhawale M.D.(Bom). Principles and practice of Homoeopathy- Part 1. 3rd Reprint 2004, Published by: Dr M. L. Dhawale Memorial Trust. Chapter 14 Susceptibility, 253, 254, 255, 258.
- 5) Rahul Mittal, Christopher V. Lisi, Robert Gerring, Jeenu Mittal, KalaiMathee, GiriNarasimhan, 3 Rajeev K. Azad, 4 Qi Yao, M'hamedGrati, Denise Yan, Adrien A. Eshraghi, Simon. Angeli, Yeo SG, Park DC, Hong SM, Cha CI, Kim MG. Bacteriology of chronic suppurative otitis media- a multicentre study. pubmed.2007; 127(10):1062-7.
- 6) Dr M.L. Dhawale M.D.(Bom). F.H.M.S. Clinico- pathologic correlations with comparisons; ICR Vol 2. Disease an expression of susceptibility inadequate. C-77, C-79.
- 7) Dr Sarabhai Kapadia, B.Sc., D.H.B. Projections into Homoeopathic posology and Therapeutics. ICR VOL 2. Susceptibility- restoration of order. C-67.
- 8) Levi J, Robert C O'Reilly. Chronic suppurative otitis media (CSOM): Pathogenesis, clinical manifestations, and diagnosis. <http://www.uptodate.com/contents/chronic-suppurative-otitis-media-csomp-pathogenesis-clinical-manifestationsand-diagnosis>

- 9) Rahul Mittal, Christopher V. Lisi, Robert Gerring, Jeenu Mittal, KalaiMathee, GiriNarasimhan, 3 Rajeev K. Azad, 4 Qi Yao, M'hamedGrati, Denise Yan, Adrien A. Eshraghi, Simon. Angeli, Fred F. Telischi and Xue- Zhong Liu. Current concepts in the pathogenesis and treatment of chronic suppurative otitis media. J Med Microbiol. 2015 Oct; 64 (Pt 10); 1103-1116. Doi: 10.1099/jmm.0.000155. PMID: 26248613. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4835974/>
- 10) Stuart Clause. The genius of Homoeopathy. Lectures and Essays on Homoeopathic Philosophy. Reprint Edition 1996, B Jain Publishers, Chapter XIII Homoeopathic Posology, 192.
- 11) Herbert a. Roberts, M.D.; The principles and art of cure by Homœopathy; chapter XII, the dynamic action of drugs