

Ayurvedic Management of Adhesive Otitis Media - A Case Study

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ABSTRACT:

In Adhesive Otitis Media, abnormal remodeling disrupts the ability of sound to travel from the middle ear to the inner ear resulting in Conductive Deafness. It can be managed by non-steroidal anti-inflammatory medication, Antihistamine drugs, Steroid Nasal Spray & if not treated then Tympanoplasty combined with eustachian tube balloon dilatation is the treatment of adhesive otitis media; But still the recurrence of Disease is High. A 50 years old Female patient visited the outpatient department of Institute with complaint of Diminished of hearing in both ear (Left ear > Right ear), Ringing sensation in both ear & Blocking sensation of both ear. The patient was diagnosed as case of Adhesive Otitis Media with clinical findings & Investigations done. Capsule Palsinuron(*Phyto pharma*), Powder combination of *Sitopaladi churna* (1gm)+ *Ashwagandha Churna*(1gm)+*Punarnava Churna*(500 mg)+*Godanti Bhasma* (125mg) three times a day with luke warm water & *Syp Dashmooladi Kwath* 10ml three times a day with luke warm water were administered for 3 months And *Shadbindu Taila Nasya* 6drops once a daily for 21 days. After the 3 months' treatment, a significant response in various symptoms such as Diminished of hearing, ringing sensation & blocking of ear was found.

KEY WORDS: Adhesive Otitis Media, Audiometry, Diminished of hearing, hearing loss, *Karna Badhira*, *Nasya*, Tinnitus.

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INTRODUCTION:

Adhesive Otitis Media the condition in which the middle ear tissues become adhesive due to persistent inflammation; associated with Adhesion of Ossicles in the Middle ear. The condition is caused by abnormal bone remodeling in the middle ear. Bone remodeling is a lifelong process in which bone tissue renews itself by replacing old tissue with new. In Adhesive Otitis Media, abnormal remodeling disrupts the ability of sound to travel from the middle

ear to the inner ear resulting in Conductive Deafness.^[1]

Adhesive Otitis Media is the most common cause of middle ear hearing loss in young adults. It typically begins in early to mid-adulthood. Caucasians are more likely to develop this condition than people of other races. In the Caucasian population the estimated prevalence is between 0.3% and 0.4% but this is thought to be less in the Asian population. However, there is a dearth of high level studies evaluating the

incidence and prevalence of Adhesive Otitis Media in the non Caucasian population. [2]

Currently, there is no effective drug treatment for Adhesive Otitis Media, although there is hope that continued bone-remodeling research could identify potential new therapies. In Modern Science Adhesive Otitis Media Can be Managed by non-steroidal anti inflammatory medication, Antihistamine drugs, Steroid Nasal Spray & if not treated then Tympanoplasty combined with eustachian tube balloon dilatation is the treatment of adhesive otitis media. [3]

In classics of Ayurveda this ailment has been described as *Madhya Karna Shoth wih Badhira* under the heading of ear diseases. *Vatahar Chikitsa* (Neuroprotective Treatment) & *Asthidhatu poshak* (Bone-healing) *Chikitsa* is one of the major treatments for Adhesive Otitis Media. Clinical observation has shown its effectiveness in the management of Hearing loss. [4]

CASE REPORT:

A Hindu, married 50 yr old Female patient visited the outpatient department of Institute with complaint of Diminished of hearing in both ear (Left ear > Right ear), Ringing sensation in both ear & Blocking of both ear. The patient was diagnosed as case of Adhesive Otitis Media with clinical findings & investigations done. A history of the present illness revealed that the patient was apparently normal 5 year back. Gradually he experienced the above said symptoms in her Right ear. The problem increased day by day, and the patient consulted his family physician & was on internal medicine which does not relieve the condition for a time being.

After 1 month, the patient experienced frequent ringing sound in ear, increased deafness & Blocking of ear. Hence, the patient consulted ENT surgeon where the

patient was diagnosed as Right ear Adhesive Otitis Media disease. The patient was undergone surgery (Tympanoplasty) for her right ear 3.5 year back, but the hearing loss cured by some extent and the disease does not cured completely.

After 6 months same symptoms was found by patient in her left ear too. Again she visited ENT surgeon who diagnosed it as Adhesive Otitis Media now in left ear and advise for surgery. The patient was not willing to go for operation again, so she visited our Shalkya Tantra OPD of the Institute for ayurvedic treatment. After doing clinical otoscopic examinations, Radio-logical investigations (X-ray mastoid Schullers view) & Hearing Test (Pure tone Audiometry & Impedance Audiometry) was diagnosed with Adhesive Otitis Media (*Madhya Karna Shoth wih Badhira*).

The personal history revealed that the patient is vegetarian. Patient was not addicted to any addiction. The general examination of patient showed pulse rate of 77/min, respiratory rate of 23/min, blood pressure of 140/90mm of Hg & body weight of 62 kg.

Otoscopic examination of Tympanic membrane showed Bilateral sclerosis with retraction of Tympanic membrane (Homo-graft Tympanic Membrane in Right ear). Tuning fork test revealed Negative Rinne's test for right ear & left ear while Weber's test showed sound lateralised to left ear. Which showed that patient having conductive deafness in left ear. Audiological Examination (Pure tone Audiometry) showed mild conductive hearing loss in right ear & Moderately severe hearing loss in left ear. [5-6]

Based on clinical examination, the patient was diagnosed as a case of Adhesive Otitis Media.

THERAPEUTIC INTERVENTION:

The following Medicines were administered for 3 months.

1. Shadbindu Taila Nasya 6 drops Once a daily in Morning for 21 days.^[7]
2. Capsule Palsinuron 2 capsules three times a day with luke warm water
3. Powder combination of following medicines= 1tsf two times daily
 - a. *Sitopaladi churna*(1gm)
 - b. *Ashwagandha Churna*(1gm)
 - c. *Punarnava Churna*(500mg)
 - d. *Godanti Bhasma*(125mg) ^[8]
4. *Syrup Dashmuladi Kwath* 10ml; three times a day with luke warm water.

The medicines were procured from outside Ayurveda pharmaceutical shop. Follow up was taken once in 15 days for 6 months. On the first follow up, the patient was reported reduction in the symptom of blocking of ear. Ringing in ear were seen once in 4 days or occasionally. Improvement was noted in general sound sleep, anxiety. After 6 months of treatment with above medication patients Audiometry report showed hearing Acuity within normal limit for right ear & Moderate conductive hearing loss for left ear. So Hearing loss from Moderate to Moderately severe After 3 month of treatment reduced to mild Hearing Loss which showed improvement in hearing from previous report.

Table-1 : Powder combination of following medicines:

Ingredients	Properties
<i>Sitopaladi Churna</i>	Acts as Anti-Inflammatory, Clears Mucous from airway, Immunomodulator
<i>Ashwagandha Churna</i>	Anti-Oxidant, Anti-Stress agent (Cortisol), Nerve Stimulant (Neuritic Atrophy & Synaptic loss), Anti-Inflammatory.
<i>Punarnava Churna</i>	Diuretic (Excrete extra body fluid), Anti-Inflammatory, Anti-Oxidant, Rejuvenate Nerve fibre.
<i>Godanti Bhasma</i>	It acts as Ca Supplement, Neuro-Muscular Protective.

DISCUSSION:

Adhesive Otitis media is most often caused when middle ear tissues become adhesive due to persistent inflammation; associated with Adhesion of Ossicles in the Middle ear. When these ossicles are unable to vibrate, sound is unable to travel through the ear and hearing becomes impaired. According to Ayurved, the patient was diagnosed as a case of *Madhya Karna Shotha* with *Badhira* with main dosha being *Vata* and *Dhatu dushti* of *Asthi*, *Mansa* & *Majja*. Hence the line of treatment mainly includes Neuro-protection, antioxidation & *Asthidhatu poshak* (Bone-healing). The patient has Advised to avoid noisy environment & avoid water entry into ear. *Syrup Dashmuladi Kwath* act as primarily on *Vata* which regulates *Kapha* Functions

as well as *rasa mansa* and *asthi dathu* poshan and improve the function of muscles, bones and joints. ^[9]

The property of *Capsule Palsinuron* is acts as Oto- neuroprotective by virtue of its *Vatashamak* & *Majjakshobhshamak* properties. *Capsule Palsinuron* is acts as *Vatanadishamak* due *vatashamak* ingredients present in it. ^[10]

Mahavat Vidhwansa Rasa: Improves Metabolic processes in CNS & PNS, Activate Neuro-Muscular Communication. It is useful to promotes strength of bones & Joints. Acts as an Anti-inflammatory & Analgesic.

Sameer Pannag: Improves tissue oxidation & regulates Blood Supply in affected areas. It is used extensively to open up the blocked Channels as in case of Stiff joint disorder.

EkanagVeer Rasa: Promotes healing of damaged nerves & Blood vessels. The *Bruhana* and *Rasayan* qualities promotes Nourishing And Rejuvenation respectively.

Sootshekhar: It acts on diseases occurring due to aggravation of *Vata* & *Pitta* together. Nutritional Support for faster healing of damaged organelle.

Lajari: Acts as astringent, alterative, antiseptic, styptic, blood purifier. Regenerative effect on Neuro-lesions. *Khursani Owa*: Checks Neuro irritation.

Shadbindu Taila Nasya : Nasal Cavity Communicate with Middle Ear Cavity Through Eustachian Tube. Adhesion of Ossicles may occur secondary to Chronic Sinusitis. *Shadbindu Taila* has Anti-inflammatory, Anti-Viral & Anti-Bacterial Properties. *Nasya* helps to reduce Sclerosis of Mastoid Bone. *Nasya* helps to nourish the senses by eliminating excess *vata* from senses..^[11]

Limitation of study:

As it is case Study the result may differ patient to patient, for better confirmation needs to do Case Series & Randomized Clinical Trial.

Consent of patient:

Consent of patient has been taken at the time of enrollment for procedure and publication of this case without disclosing the identity of patient.

CONCLUSION:

Study concluded that *Shadbindu Taila Nasya*, *Capsule Palsinuron*, combination of *Sitopaladi Churna*, *Ashwagandha Churna*, *Punarnava Churna*, *Godanti Bhasma* and *Syrup Dashmuladi Kwath* was found to be safe & effective in the management of Adhesive Otitis Media (*Madhya Karna Shoth wih Badhira*).

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