



Review Article

A review on Otitis media (*karnapaka*): Ayurvedic aspects and treatment

Nisha^{1*}, Lokesh²

¹Dept. of Shalakya Tantra, Govt. Ayurvedic College, Rewa, Madhya Pradesh, India

²Dept. of Kaumarbhritya, Govt. Ayurved College, Rewa, Madhya Pradesh, India

*Corresponding author email: nishaagrahari89@gmail.com

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Abstract

Otitis media (*Karnapaka* in Sanskrit) is defined as an inflammation of the middle ear due to the infection caused by micro-organism. In Ayurveda, there are many herbs available as antimicrobial. Ayurveda suggest prevention rather than treatment. Ayurveda involve first line of treatment start with appropriate cleansings. The second course of action is the actual treatment. There are many natural ways for the treatment of such conditions, Ayurveda possesses various route of treatment for ear infections including; herbal formulations, cleansing, *Panchkarma* and utilization of animal product like Ghee. This article represents Ayurvedic overview on Otitis Media.

Key words

Karnapaka, Ayurveda, Alternative Medicine, Pediatric.

Introduction

Otitis media is one of the most common diseases of childhood. It has a peak incidence between ages 6 and 15 months. As per Ayurveda, ear disorders can be caused by one of four imbalances. *Vata*: thin discharge, dried ear wax, severe pain, tinnitus and deafness. *Pitta*: Yellow discharge, swelling, redness, tearing, and burning. *Kapha*: White and slimy discharge, abnormal hearing, itching, stable swelling, and

mild pain. *Sannipataja*: Characteristics when *Vata*, *Pitta*, and *Kapha* imbalance occur together; the discharge is colored according to the predominant dosha.

In Ayurveda, various formulations are described for better approach to the disease Otitis media. As per Ayurveda, *Rasa* of all the drugs are *Katu* and *Tikta*; *Tikta Rasa* induces cleanness, dryness, and keenness and helps in such type of infections. Ayurveda with *Krimihara* and *Puyashoshanashakara* properties helps to



remove ear debris, fungal mass, discharge, and reduces itching. *Tikta Rasa* contains *Shodhana* property which can help to open channels and clean the wound, ultimately leads healing process [1, 2, 3, 4].

Tinospora cordifolia

Tinospora cordifolia is one of the constituents of several Ayurvedic preparations used in many diseases including ear infections. It has anti-inflammatory and antiseptic properties also.

- **Kingdom:** Plantae
- **Division:** Magnoliophyta
- **Class:** Magnoliopsida
- **Order:** Ranunculales
- **Family:** Menispermaceae
- **Genus:** *Tinospora*
- **Species:** *T. cordifolia*

It is distributed throughout the tropical Indian subcontinent and China plant is commonly known as *Giloy*. Other common names and synonyms are *Guduchi*, *Amrita*, *Amritavalli*, *Madhuparni*, *Guduchika*, *Chinnobhava*, *Vatsadani*, *Tantrika*, *Kundalini*, *Chakralakshanika* (Sanskrit), *Gulanchara* (Bengali), *Gurcha* (Hindi), *Garo*, *Galac* (Gujarati), *Thippateega* (Telugu), *Amrutavalli* (Kannada), *Amrita*, *Gilo* (Kashmiri), *Chittamruti* (Malayalam), *Gulvel* (Marathi), *Guluchi* (Oriya), *Gilo* (Punjabi), *Seendal*, *Seendil Kodi* (Tamil), *Siddhilata*, *Amarlata* (Assamese) *Guduchi* etc.

Studies revealed that the aqueous extract of *T. cordifolia* showed a significant anti-inflammatory activity. A study proved its potency more than of acetylsalicylic acid in acute inflammation. *T. cordifolia* was reported to have significant reduction in pain. *T. cordifolia* also inhibits *in vitro* growth of microorganism. Due to all these properties it showed significant response in *Otitis Media*. Study confirmed that *T. cordifolia* (7.82% in 5 ml of syrup) was found

to elicit good clinical response in children suffering from chronic Otitis media [5].

Combinations of Ayurvedic formulations

Study established role of *Madhukadi Taila Karnapichu* and *Rasnadi Guggulu* in the treatment of Otitis media. Significant results were found in the signs and symptoms of the disease. Since all the ingredients are having *Vrana ropana*, *Jantughna*, *Shothahara* and *Vedana-hara* properties. Study showed excellent responses of selected formulation in disease conditions.

Madhukadi Taila prepared by *Tailapaaka Vidhi* upto *Kharapaaka* state. It induces cleanness; dryness and keenness help to remove ear debris discharge and reduces itching. Due to *Sraava*, healing process hampered in *Vrana*. *Madhukadi Taila and Rasnadi Guggulu*, both have *Ruksha*, *Laghu*, *Tikshna Guna*. *Ruksha Guna* is having *Shoshana Shakti* which will absorb the discharge in auditory canal and encounters the *Kapha Dosha*. *Laghu Guna* has *Lekhana* and *Ropana* properties which will help in healing of wound. *Tikshna Guna* is *Shighrakaari* which starts its action very quickly and will encounter *Vaata* and *Kapha Dosha*. *Ushna Veerya* is another property of *Madhukadi Taila and Rasnadi Guggulu*. Due to *Ushna Veerya* it will encounter *Vaata Dosha* and *Gati* of *Vaata* gets normalized. Due to all these properties *Madhukadi Taila Karnapichu* and *Rasnadi Guggulu* improved disease conditions significantly [6].

Cleome viscosa for Otitis media

Cleome viscosa Linn commonly known as "wild or dog mustard," is an annual, sticky herb belonging to family *Capparaceae* found as a common weed all over the plains of India and throughout the tropics of the world. The herb



Cleome viscosa showed broad spectrum antimicrobial action towards Otitis media pathogens. Plant traditionally used to control ear infections. Various researchers proved its antimicrobial potency but recent study also established plant as potent herbs for the treatment of Otitis media. Study reveals that extracts of *Cleome viscosa* found to have excellent role for the treatment of Otitis media this property of plant attributed to its antimicrobial activities [7].

Acute Otitis media: Naturopathy vs. Antibiotic treatment

Herbal products are currently available for use in conjunction with or instead of conventional agents. Study reveals the effectiveness of naturopathic extracts in the management of ear pain of Otitis media, relief in pain was found to be greater in the children treated with naturopathic than antibiotics. The antibacterial and immunological abilities of plant extracts are well documented in the treatment of middle ear infection and the naturopathic solution showed to have in vitro bacteriostatic and bactericidal activity against common pathogens. This property makes it suitable option for Otitis media. Some studies suggest that herbal extracts stimulates the immune system. Herbal extract (Naturopathy) works via local enhancement of anti-inflammatory and immunological activities. In addition, herbal extracts are well tolerated, have a long half-life and are easy to administer. Study reveals that the naturopathic eardrop formulations are as effective as amoxicillin for the resolution of middle ear effusion and significantly work for Otitis media. Thus the use of Naturopathy for Otitis media reduces the need of systemic antibiotic treatment without an increased risk of secondary complications [8].

Complementary and alternative medicine for pediatric Otitis media

Ayurveda utilized some common herbs traditionally in Otitis media like; **Amla** used to open the eustachian tubes. **Belladonna**: For throbbing and sharp pain accompanied by fever and flushing in the outer ear. **Chamomilla**: For children with Otitis media who are in great pain. **Lycopodium**: For right-sided ear pain that is worse in the late afternoon and early evening; fullness of the ears, ringing or buzzing of the ears. **Eucalyptus**: Used mostly late in the course of treatment relief from pain and sensation [9].

Conclusion

Otitis media is one of the most common bacterial infectious diseases among children Ayurvedic medicine, developed in ancient India, is based on the principle of balance. Regular cleaning and dry mopping of ear canal is necessary before every application for better efficacy. Local treatment is more effective than systemic administration as it tackles the disease effectively. Vitamin supplementation may be helpful. Probiotics may also be beneficial as well. Other therapies Aromatherapy with lavender essence, chamomile, cajuput, evening primrose oil, flax oil, and borage has been used to treat Otitis media.

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