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# TO STUDY THE EFFECTIVNESS OF 50 MILESIMAL POTENCY IN MANAGEMENT OF OTITIS EXTERNA IN ADULT

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#### ABSTRACT:

Otitis externa, usually characterized by inflammation or infection of the outer ear canal. It usually comes from combination of factors such as moisture retention, trauma to ear canal, and bacterial or fungal infections. Is the condition Symptoms including pain, itching, swelling, discharge and symptoms are usually characterized Sometimes, hearing the loss. While it is usually self-limiting, untreated or severe Cases can lead to complications such as cellulitis or, rarely, necrotize Otitis Externa.

In some individuals the recurrent nature of this condition highlights the need for effective and durable management approaches.

The global spread of Otitis Externa varies significantly based on environment and demographic factors. It is particularly common in areas with warm, humid climate, where moisture facilitates microbial growth. Studies show that about 10% of the population may suffer from the disease during their lifetime. The global burden of fungus otitis externa, also known as otomycosis, is found between 9% to 30%. 17 The situation is seen in all age groups, but especially prevalent in young adults and swimmers, in some studies with a modest female predominance.

According to some research, homeopathic drugs, especially in 50 millsimal (LM) potency, have shown a promise to address both acute and chronic otitis externa. LM Potency is known for its acute and soft action, which is suitable for managing inflammatory conditions due to improper growth.

### INTRODUCTION:

Otitis refers to ear inflammation and can affect different parts of the ear. It is classified into three main types at the base of the affected area: Otitis Externa that affects the outer ear, otitis media that affects the middle ear and otitis interna that affects the inner ear.

Otitis Externa is a broad condition that involves inflammation or infection of the outer ear canal. It affects individuals in all age groups but is particularly common.

In prolonged adults of moisture, trauma for the ear canal, or underlying dermatology conditions. Symptoms like pain, itching, inflammation, and Discharge can significantly reduce the quality of life, require timely and effective intervention.

Otitis Externa is attributed to about 10% of all ear diseases worldwide, with high rates in tropical and subtropical climate. Otitis Externa is a common condition in India, although there are no accurate national prevalence rates.

Continuous documents. A study in southern India reported the prevalence of otitis externa of about 5–10% in patients going to ENT clinics. Otitis externa is mainly caused by bacteria or fungal infections, but can also result in non-infectious causes such as trauma, moisture risk, or allergic reactions. Pathophysiology involves a complex interaction between microbial pathogens, local immune response and physiological and physical characteristics of the ear canal.

LM Potency, also known as 50 Millesimal Potency, in the 6th edition of the Organ of Medicine. There is a unique measure of homeopathic preparation offered by Samuel Hamon. It is considered one of the most sophisticated and soft methods of administering homeopathic drugs, which is designed to provide rapid, deep and long -lasting treatment with minimal growth.

The purpose of this study is to evaluate the effectiveness of 50 mills of potency in the management of otitis externa in adults. By focusing on individual prescriptions depending on the totality of symptoms, the study not only wants to assess the ability of homeopathic treatment to reduce acute symptoms, but also address underlying sensitivity, thus reduces recurrence and improves overall health results.

This research will contribute to increasing evidence that supports homeopathy in the management of inflammatory and infectious conditions and provide insight into the practical application of LM potency in clinical practice.

#### **REVIEW OF LITERATURE:**

Historical Backgrounds of Otitis Externa -

Otitis Externa has been accepted as a position affecting the outer ear since ancient times. Its history spreads over centuries, which develops medical knowledge and treatment strategies. References to ear infections, including zealous conditions, are found in ancient medical texts.

Ancient Egyptian medicine (c. 1550 BC); An ancient Egyptian medical lesson, ears, pairs, refer to treatment for ear infection, including the application of oil and herbs in the ear canal.

Hippocrates (c. 460–370 BC); The "father of therapy" described ear diseases and suggested treatment such as hot oil applications, which were used for external ear conditions.

Medical texts from medieval period, such as Canon of Medicine, included earache and infection by Evisena. Remedies often include herbal poultice or other topical remedies to reduce symptoms.

During the Renaissance (15th -16th century), progress in anatomy and therapy improved the understanding of ear infection. Anatomists such as Andreas Vesalius began documenting elaborate structures of the ear.

Physicians at that time distinguished outer ear infections from mid -ear conditions. Remedies included the use of vigilance in plant-based oils, leeches and even severe cases.

With the advent of modern otology, Otitis Externa was studied more deeply. Jean Mary Itard (1774–1838), a French Otologist, contributed significantly to understanding ear disorders. Treatment moved towards more antiseptic approaches as the drug theory of the disease received acceptance.

Physicians began using alcohol or glycerin-based solutions to clean and disinfect the ear canal. In the early 20th century, the Otitis Externa was recognized as a separate clinical unit, especially among the swimmers, leading to its surname "swimmer ear".

Advance in microbiology identified general pathogens responsible for the situation, including pseudomonous aeruginosa and Staphylococcus aurus.

Antibiotic drugs and antifungal agents revolutionized the treatment of Otitis Externa in the middle of the 20th century. Conjunction with antibiotics and steroids led to a standard therapy.

The contemporary understanding of Otitis Externa emphasizes its multicultural causes, including bacteria, fungal and allergic components. Advances in imaging and diagnostic tools have improved the ability to separate otitis externa from other ear conditions such as otitis media or malignancy.

Preventive measures such as ear safety and improvement in hygiene practices during swimming have reduced the incident in the susceptible population.

#### Operations of Otitis Externa -

The roots of the word Otitis externa are in Latin and Greek, which reflects medical terminology developed for centuries:

Otitis: The Greek word "OUS" means "ear". The suffix "--itis", from Greek, reflects "swelling". Together, "otitis" translates "ear inflammation".

Externa: From the Latin word "externalus", which means "outer" or "outer." It distinguishes the condition from inflammation in other parts of the ear, such as middle ear (otitis media) or inner ear (otitis intern).

The literal meaning of otitis externa literally means "inflammation of the outer ear," especially referring to the external hearing canal and sometimes including the organism. This terminology has been used in medical literature to describe the conditions affecting the outer ear since the development of systematic medical classification in the 18th and 19th centuries.

#### ❖ Definition of otitis externa -

Otitis externa is inflammation or infection of the outer hearing canal, oral, or both. This is usually caused by bacteria or fungal infections and is characterized by symptoms such as ear pain, itching, discharge, and sometimes hearing loss. The condition is often associated with moisture retention in the ear, so its general name, "the swimmer's ear."

Epidemiology of Otitis Externa -

Otitis Externa is a common condition that affects individuals of all ages. Its occurrence varies in areas affected by the factors of environment, behavior and health care. Major points about its global epidemiology include:

Otitis externa is attributed to about 10% of all ear diseases worldwide, with high rates in tropical and subtropical climate. Otitis externa is a common condition in India, although the exact national prevalence rates are not constantly documented. A study in southern India reported the prevalence of otitis externa of about 5–10% in patients going to ENT clinics.

It affects all age groups, but it is usually seen in 18–30 years and adults of children's age. The swimmer's ear, a common form of otitis externa, is prevalent in individuals especially in individuals who often float or contact continuously for water. Otitis Externa affects both children and adults, but due to continuous exposure of water, there is high proliferation in children. Both sexes are equally affected, although some studies suggest that women may be at greater risk due to cultural practices such as frequent hair washing and ear cleaning methods.

The high-risk population includes swimmers, which are constantly exposed to water (eg surf), individuals with compromised immune systems, and existing skin conditions such as eczema or psoriasis.

Otitis externa is more common in warm months due to increase in contact with water and humidity, with high phenomena in summer, especially in areas with high humidity and rain.

Most cases are caused by bacterial infections, especially pseudomonous aeruginosa and Staphylococcus aureus, although fungal infections (often caused by aspergillus species) are also important, especially in tropical regions.

High rates are seen in tropical and coastal areas of India, where humid conditions and water sources (such as swimming, bathing in rivers, or coastal activities) are common.

Etiology of Otitis Externa -

Otitis externa is mainly caused by infection (bacterial, fungal, or viral) or non-infectious factors, and can result from a variety of environment, behavior and medical conditions. The primary cause is usually an infection, but other factors such as trauma, allergic reactions and underlying skin conditions may also contribute.

- 1. Infectious cause
- A) Bacterial infection:
- Pseudomonous aeruginosa is the most common bacterial pathogen, which is an accounting for 40–60% of cases globally. It thrives in moist environment and is often associated with water exposure.
- Staphylococcus is the second most common bacterium found in the Otitis Externa, which is responsible for 10–30% of cases. This can cause more severe infections, sometimes associated with abscess formation.
- Other bacterial pathogens, such as Streptococcus species and protrusus vulgaris, can also cause otitis externa, but they are less common.
- B) fungal infection:
- Aspergillus species, especially aspergillus niger, is the most common cause of fungal otitis externa, which is often seen in tropical and humid climate.
- Other fungi, such as Candida species, can also cause infections, especially in immunocomomized individuals or people with chronic ear conditions.

#### C) viral infection:

Viral infections are less common causes of otitis externa, but can be particularly in terms of other viral diseases. Herpes simplex virus or varicella-geoster virus can sometimes affect the outer ear canal.

- 2. Non-infective cause
- A) Trauma: Physical injuries to the ear canal, such as cotton swab, hairpin, or other foreign objects, can disrupt the skin of the ear canal, which can cause an entry point for pathogens. Scratching or excessive cleaning can also damage the skin that lining the ear canal and leads to infection.

Risk of moisture: Risk of frequent water, such as swimming, bathing, or washing the ears, is a major risk factor. The swimmer's ear is a common term for otitis externa due to moisture accumulation in the ear canal, which creates a favorable environment for bacteria or fungal development.

- C) The underlying skin conditions: Eczema, psoriasis, or seborrheic dermatitis conditions can prevent individuals to exit otitis and break the natural protective obstruction of the skin, which makes it easier for pathogens to enter the skin.
- D) Allergic reactions: Allergies such as ear drops, hearing devices, or shampoo can cause inflammation and itching in the ear canal, possibly leading to otitis externa. This inflammation can make the ear canal more susceptible to infection.
- E) Excessive earwax (seruman impact): Early buildup of earwax can block the ear canal, which may cause discomfort and increases the chances of secondary infections. Wax can implicate moisture and bacteria, which can cause otitis externa.
- 3. Environment and behavior risk factor
- A) Climate: Humid or tropical environment, where moisture and heat are prevalent, are common settings for otitis externa. This environment promotes bacterial and fungal growth in the ear canal.
- B) Use of the hearing device or earplug: The extended use of the hearing device or earplug can create a moist, warm atmosphere in the ear canal, which contributes to the development of otitis externa.
- C) Inappropriate ear hygiene: Constant cleaning of ear canal with cotton bushes, nails, or other items can damage the delicate skin of the ear canal, which can cause irritation and infection.

Clinical features of Otitis Externa -

Otitis externa presents the severity of the position and a series of symptoms and indications depending on the type. These features mainly include the external hearing canal and can expand to the surrounding structures in severe cases.

- > Ear pain: Hallmark symptoms, often severe and severe and exaggerated by pressure or pressure on the tragus. Pain may be radiated in jaw or temporary
- > pruritus (itching): In the early stages, common, especially in the types of fungal otitis externa or allergies.
- > Discharge (Otoria): Water, purulant or foul-smelling can occur on the basis of motivational agent. Fungal infections often produce thick, colored debris (eg, black, yellow or white).
- > Hearing loss: conductive hearing loss due to inflammation, discharge or debris obstructing the ear canal.
- ➤ Perfection or pressure sensation: Patients may feel sensational in affected ear.
- > Pain on tenderness and pain: Pain is a clinical feature when pressing the tragus or pulling pinna.
- $\succ$  inflammation (edema): Visual narrowing of the ear canal due to inflammation and inflammation.
- > Redness (erythema): The skin and auricle of the ear canal may appear red and swelling.
- > debris or exudate in the canal: the presence of seruman, pus, or fungal hyp depending on the type of infection.
- > fever and systemic symptoms: can indicate abnormal but more severe or systemic infection.
- > Granulated tissue formation: Chronic or necrotizing is seen in the otitis externa, often at the junction of the bony and the cartilaginous canal.

Fungal Otitis Externa: Acute itching, the presence of fungal debris, and less pain than the types of bacteria.

- > Necrotizing otitis externa: severe, deeply seated pain, cranial nerve participation (eg, facial paralysis), and systemic symptoms in immunological individuals
- > Allergies or Examsatus otitis externa: mainly itching, dry or flaky skin, and the absence of significant discharge or pain.
- \* Diagnosis of otitis externa -

The diagnosis of Otitis Externa (OE) is primarily clinical based on history and physical examination. Complex cases may require additional testing and imaging.

1. Clinical diagnosis

history taking:

- Risk of recent water (eg, swimming).
- Ear trauma (eg, cleaning with cotton swab or other items).
- Symptoms: Ear pain, itching, discharge and hearing loss.
- Related systemic conditions (eg, diabetes, immunosuration). 38

#### Physical check:

- Inspection: Inflammation, erythema, and debris or discharge in external hearing

Canal (EAC).

- Papation: Pain on the manipulation of tragus or pin (a hallmark feature).
- Otoscopy: the presence of inflammation or ear canal,

Debris, and the condition of the tympanic membrane (if visible).

- 2. Clinical criteria (general findings)
- Ottalia (ear pain) or tenderness in the outer ear.
- Canal Edima or Erythema.
- Otoria (discharge).
- Itching or perfection in the ear.

Homeopathic approach in Otitis Externa -

The homeopathic approach to the management of otitis externa focuses on individually individually, addressing both local symptoms and underlying constitutional factors that can contribute to the position. The homeopathy emphasizes the use of the patient's use of the patient's use that stimulates its healing processes with the patient's specific symptoms, medical history, and overall health status.

Common homeopathic treatment for Otitis Externa includes:

- Apis Mel: It is often indicated that when there is acute irritation, stinging pain, and inflammation of the ear, with potential redness and sensitivity to touch. This remedy is particularly useful when the patient experiences sensation of swelling in the ear canal.
- Heper Sulph Calcarem: This remedy is useful when the infection is with a tendency to develop a rapid, shooting pain and a abscess or pus -filled discharge. It is often used for more severe cases, which has a tendency to be sensitive to cold and increases with touch.
- Mercury Solubilis: Recommended for cases where the patient experiences ear pain, especially when the pain is spoiled at night, with a thick, aggressive discharge. The ear canal can be inflamed and there may be a feeling of perfection or pressure in the ear.

Chamomilla: Suitable for children or individuals who are very irritable and sensitive to pain. Chamomilla may be helpful when there is a combination of ear pain, irritability, and sensitivity to pain or noise.

- Belladonna: Intense, beating pain, redness and ear heat are indicated in cases, often associated with fever. Belladonna is helpful in intense conditions where the symptoms are characterized by sudden, acute and high fever.
- Sulphur: Often used when the ear canal is itchy and a tendency to recur the condition. Sulfur is also considered when there is an underlying trend of skin condition or chronic inflammation.
- Calcarea Carbonica: This remedy may be suitable for individuals with history of recurrent ear infections, especially if they have a tendency to feel cold or other constitutional weaknesses.
- Pulsatilla: Otitis externa with thick, blurred, yellow-green discharge. Worse in hot room, better in open air. Ear pain increased at night. Often indicates in children.
- Silicia: Chronic otitis externa aggressive, purulent discharge. The pain is spreading to the head. Cold air and sensitivity to drafts. Reduction treatment tendency.
- Graphites: Chronic eczema of the outer ear with coarse, sticky discharge. Itching and hoof behind the ear. The tendency to develop skin explosions is associated with.
- Lycopodium: Right-sided otitis externa. To make noise in the ear. The pain spreads to the throat, especially when swallowing.
  Millsimal Potency -

The 50 Millsimal Potency (LM Potency) is a relatively recent development in the field of homeopathy, introduced by the famous German Homeopath Samuel Hainiman, the founder of Homeopathy. This was first proposed in his later functions, especially in the 6th edition of the Organ of Medicine (published in 1842), as a more sophisticated and effective way of preparing and determining homeopathic remedies.

The LM potency is designed to offer a gentler, deep and more continuous action than the traditional power (eg, 30c, 200c). It is a step ahead in the discovery of Hahnemann for accuracy in homeopathic treatment, allowing measure to select and fine adjustment in doses. LM potency is often considered more suitable for chronic conditions and constitutional treatments, where more gradual and long -lasting effects may be required.

In The Organ of Medicine, Samuel Hanman introduced the 50 Millsimal Potency (LM potency) in the 6th edition, offering specific sexual arousal to explain its use and principles. These finishing high strength emphasizes the more gradual, gentle and continuous action of LM potency.

The purpose of this study is to evaluate the effectiveness of 50 mills of potency in the management of otitis externa in adults through non-disciplinary experimental design. The samples were systematically selected from the medical camps organized by the college OPD, IPD, and the institute, including 60 cases of Otitis Externa. Each case was widely evaluated, and the appropriate homeopathic drugs in 50 millesimal potency were prescribed with regular follow -up for three months or more.

- Demographic distribution showed that most cases (43.3%) are 20–30 years of age, with more than women (38.3%) of men (61.6%).
- Socio Economic Analysis indicated that a sufficient part of cases (40%) belonged to the lower class.
- -Miasmatic analysis showed that 48.3% of cases were of Soro-Syphilis origin, followed by Soro-Sycosis (35%) and Psycho-Syphilis (16.6%).
- Various types of drugs including Pulsatilla (16.6%), phosphorus (15%), and Belladonna (13.3%) were employed based on individual needs of each case.
- Results showed that 58.3% of the participants received complete treatment, while 25% demonstrated significant improvements. Only 16.6% were improving, underlining the efficacy of this approach. Clinical improvement time was less than traditional methods, and no adverse effects were observed, confirming the safety and viability of 50 mills of potency in the treatment of otitis externa.

Finally, the study establishes the effectiveness of 50 mills of potency as a promising and safe therapeutic approach in the management of otitis externa in adults, reduces significant treatment rates and duration of treatment. Further research is recommended to validate these findings and include large, random samples to validate the widespread prevention of this treatment method.

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