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Evaluation of Homeopathic Treatment for Molluscum Contagiosum: A Comprehensive Review and Analysis

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ABSTRACT:

Molluscum contagiosum (MC), a viral skin infection caused by the molluscum contagiosum virus (MCV). This infection, poses a therapeutic challenge due to limited effective treatment options and potential adverse effects associated with conventional interventions. Homeopathy, a holistic system of medicine, offers a promising alternative approach for managing this condition. This paper systematically reviews and evaluates the efficacy, safety, and clinical outcomes of homeopathic treatment modalities for molluscum contagiosum based on existing literature. The review encompasses randomized controlled trials, observational studies, case reports, and expert opinions to provide a comprehensive understanding of homeopathy's role in molluscum contagiosum management.

Keywords: Molluscum contagiosum(MCV), homeopathy, treatment, efficacy, safety, systematic review

INTRODUCTION:

An infection of the skin produced by a virus is known as Molluscum contagiosum (mo-LUS-kum kun-tay-jee-OH-sum) causes elevated, spherical, skin-colored lumps with a dent or dot on top. These lumps may become pink in colour.

In the event that the bumps are damaged or scratched, the infection may spread to adjacent skin. Contact with infected objects and person-to-person contact are two further ways that Molluscum contagiosum spreads.

Molluscum contagiosum primarily affects children, although it can also afflict adults, especially those with compromised immune systems. Molluscum contagiosum can be acquired by adults with a healthy immune system through sexual activity with an infected partner. 2

While Molluscum contagiosum is generally benign and self-limiting, it can cause discomfort, itching, and cosmetic concerns, particularly in pediatric populations. The condition often resolves spontaneously within months to years, but treatment may be sought to expedite lesion resolution, alleviate symptoms, and reduce the risk of transmission.

Conventional treatment options for MC include cryotherapy, curettage, topical agents (such as imiquimod and podophyllotoxin), and destructive therapies. However, these interventions may be associated with adverse effects, discomfort, and scarring, especially in children.3

EPIDEMIOLOGY:

Prevalence:

The prevalence of Molluscum contagiosum can vary widely, with estimates ranging from 1% to 11% in children and adolescents worldwide. However, prevalence rates may be higher in certain populations, such as those with immunocompromised conditions or individuals living in crowded or institutional settings.

Age Distribution:

Molluscum contagiosum primarily affects children, with peak incidence occurring in preschool and school-aged children. Studies have shown that up to 5-10% of children may develop MC at some point during childhood. However, MC can also occur in adults, particularly among sexually active individuals and those with weakened immune systems4.

Transmission:

Molluscum contagiosum is highly contagious and spreads through direct skin-to-skin contact, as well as through fomites such as towels, clothing, and

shared objects. The virus can also be transmitted through sexual contact, leading to genital MC in adolescents and adults. Close contact settings such as schools, daycare centers, and sports activities contribute to the spread of MC among children5.

Geographic Distribution:

Molluscum contagiosum is distributed worldwide and affects individuals in both developed and developing countries. However, the prevalence and distribution of MC may vary depending on factors such as population density, socioeconomic status, and access to healthcare resources.

Molluscum contagiosum is a harmless skin illness that primarily affects children, adults who are sexually active, and people with impaired immune systems. This disease, which is caused by a particular poxvirus strain, affects 2 to 8% of people worldwide. It has lately been connected to the progression of the HIV epidemic⁶.

ETIOLOGY:

Molluscum contagiosum (MC) is caused by the molluscum contagiosum virus (MCV), a double-stranded DNA virus belonging to the Poxviridae family. MCV is classified into four genotypes: MCV-1, MCV-2, MCV-3, and MCV-4, with MCV-1 being the most common genotype associated with human infections⁷.

Molluscum contagiosum lesions can spread through direct skin-to-skin contact, including intercourse, or indirect contact through the use of towels, pants, toys, razors and tattoo tools. After patients scrape mollusks, Molluscum contagiosum can potentially spread via autoinoculation to healthy skin. While not entirely proved, transmission from shared swimming pools and other wet situations is conceivable. Rare reports of prepartum and in utero transmissions have led to the development of skin lesions or congenital molluscum contagiosum in the first few months of life⁸.

TYPES OF MOLLUSCUM CONTAGIOSUM:

Molluscum contagiosum (MC) typically presents as one main clinical type, characterized by small, dome-shaped papules with central umbilication. However, variations in the clinical presentation of MC may occur, leading to different types or subtypes. The classification of MC types is based on various factors such as lesion morphology, distribution, and associated features. The main types of MC include:

Classical Molluscum Contagiosum:

Characterized by the presence of discrete, dome-shaped papules with central umbilication. Lesions are typically 2-5 millimeters in diameter. Commonly observed in children, particularly on the face, trunk, and extremities.

Giant Molluscum Contagiosum:

Eruptions larger-than-usual lesions of molluscum contagiosum, often exceeding 1 centimeter in diameter.

Atypical Molluscum Contagiosum:

Represents uncommon or variant presentations of Molluscum contagiosum that deviate from the classical morphology.

Genital Molluscum Contagiosum:

Molluscum contagiosum lesions localized to the genital area, including the penis, vulva, scrotum, perineum, and groin.

Eyelid Molluscum Contagiosum:

This Involves Molluscum contagiosum lesions localized to the eyelids or periocular area. this may present with distinctive clinical features such as blepharitis, conjunctivitis, or eyelid edema9.

PATHOPHYSIOLOGY:

A DNA poxvirus is the human molluscum contagiosum virus (MCV).

MCV only infects humans; it has no reservoir in animals.

MCV multiplies in the cytoplasm of cells. This could be connected to the greater than 50% genetic similarities between the variola and vaccinia viruses.

Molluscum infections in adults typically affect the genitalia, lower abdomen, buttocks, and inner thighs and are frequently sexually transmitted. Molluscum contagiosum infections on the lips, mouth, and eyelids are also uncommon. Direct touch or sharing of clothes items (including towels) was how it spread.

MCV frequently results in cutaneous neoplasms that are asymptomatic. The risk of cutaneous neoplasm increases in children, sexually active adults, and people with persistent opportunistic acquired immunodeficiency syndrome (AIDS)-associated disease. These groups are more susceptible to the virus¹⁰.

There is a two-week to six-month incubation period. Skin lesions caused by the Molluscum contagiosum virus are confined to the epidermis and do not spread throughout the body. The virus only infects keratinocytes. Innate defence response development is hindered by the proteins produced by the Molluscum contagiosum virus, which also prolongs the duration of skin lesions¹¹.

EVALUATION/HISTORY:

Molluscum contagiosum lesions in immunocompromised individuals may be unusual, larger in size, and/or mimic cancerous conditions like keratoacanthoma or basal cell carcinoma (in the case of single lesions) or other infectious disorders like cryptococcosis and histoplasmosis (in the case of extensive lesions).

Dermoscopy, reflectance confocal microscopy, and histopathology may be helpful in the event of a diagnosis challenge.

A molluscum's dermoscopy reveals a core, white to yellow, amorphous region with linear or branching vessels surrounding it.

Luminance Confocal microscopy additionally reveals a distinct centre region with septa dividing hypo-refractive roundish lobules. According to histopathology, these lobules are made up of larger keratinocytes with a peripheral nucleus and an abundance of cytoplasm that contains viral inclusions, also known as Henderson Paterson bodies. The adjacent epidermis has pronounced acanthosis.⁹

CLINICAL FEATURES:

Signs and symptoms of molluscum contagiosum include:

-skin-colored, raised, spherical pimples

-tiny lumps that are usually less than 1/4 inch (less than 6 millimetres) in diameter

-bumps with a tiny dot or dent in the middle or at the top

-Pink, itchy pimples

-children's bumps on their faces, trunks, arms, or legs

-bumps on an adult's inner thighs, lower belly, or genitalia if the infection was acquired through sexual contact¹².

INVESTIGATIONS:

A medical professional will do a **physical examination** and ask questions to learn more about your symptoms before making the diagnosis of molluscum contagiosum infection. A thorough medical history will also be obtained by your provider. A diagnosis will be made based on how the bump(s) or papule(s) on your skin appear.

A skin biopsy, in which your doctor takes a little piece of the papule from your skin to look at under a microscope, can assist confirm a diagnosis¹³.

DIFFRENTIAL DIAGNOSIS:

- Keratoacanthoma
- Lichen planus
- Epidermal cyst
- Pyoderma
- Verruca vulgaris
- Folliculitis
- Cutaneous fungal disorders like histoplasmosis and sporotrichosis
- Basal cell cancer
- Condyloma acuminatum
- Varicella-zoster
- Milia eruptions⁹

ALLOPATHIC TREATMENT:

Molluscum contagiosum doesn't require treatment because the infection can resolve on its own.

Treatment options for young patients, those with compromised immune systems, and those experiencing painful symptoms include:

Removing the papules: Your doctor may employ a variety of techniques, such as cryotherapy, curettage, or laser therapy, to eliminate the papules from your skin and eliminate any apparent symptoms of the illness. Your provider will remove your papules securely; don't attempt to remove them yourself. Taking medication: Children's infections are frequently treated with medication, such as oral cimetidine.

Applying topical ointments or creams: These products lessen symptoms and hasten your recuperation. Potassium hydroxide, salicylic acid, benzoyl peroxide, podophyllum, and tretinoin are examples of topical medicines.¹³

HOMEOPATHIC APPROACH:

Molluscum contagiosum can be treated with homoeopathy in a variety of ways. Since homoeopathy aims to cure the illness at its source, it results in

long-term remedy as opposed to short-term alleviation. Constitutional Treatment is the name given to the Homoeopathic treatment that is administered. This indicates that the primary complaint and a thorough examination of the patient's complete constitution are both taken into consideration when prescribing medication.

This includes examining the type of complaints a person makes, what foods he enjoys and dislikes, his personality and mental characteristics, his past, and his family history. The medication selected for the patient is referred to as Constitutional when all of these factors are considered.

Remedies:

1.Thuja Occidentalis

Symptoms: Warty growths, skin lesions that are painful and may bleed easily. Lesions can be multiple and clustered. Profile: Best suited for individuals who tend to have oily skin, with a history of warts or other skin growths. Often indicated when lesions are primarily on covered parts of the body.

Modalities:

Aggravation: Damp weather, warmth. Amelioration: Dry weather, cold applications¹⁴.

2.Antimonium Crudum

Symptoms: Molluscum lesions that are large, itchy, and surrounded by red, inflamed skin. Lesions often have a white or yellowish crust. Profile: Suitable for individuals with a tendency to develop thick, callous skin, especially on the soles of the feet and palms of the hands. Modalities:

Aggravation: Heat, bathing. Amelioration: Rest, open air¹⁴

3.Calcarea Carbonica

Symptoms: Small, firm, pearly lesions, often appearing in clusters. Lesions may be itchy and slow to heal. Profile: Suitable for individuals who are often chilly, sweat easily, and may have a history of obesity or being overweight. They often crave eggs and sweets. Modalities:

Aggravation: Cold, damp environments. Amelioration: Warm, dry conditions.¹⁵

4. Silicea (Silica)

Symptoms: Molluscum lesions that are hard, painful, and slow to heal. May be associated with scarring and pus formation. Profile: Ideal for individuals who are often cold, have weak immune systems, and are prone to infections and abscesses. Modalities:

Aggravation: Cold, drafty environments. Amelioration: Warmth, wrapping up warmly.¹⁴

5.Hepar Sulphuris Calcareum (Hepar Sulph)

Symptoms: Molluscum lesions that are painful, sensitive to touch, and may become infected with pus formation. Profile: Suitable for individuals who are irritable, oversensitive, and prone to developing boils and abscesses. Modalities:

Aggravation: Cold air, touch. Amelioration: Warmth, covering up.¹⁵

6.Natrum Muriaticum (Nat Mur)

Symptoms: Lesions that are dry, cracked, and may bleed when scratched. Often accompanied by dry skin and a tendency for cold sores. Profile: Suitable for individuals who are introverted, sensitive, and prone to emotional stress. They often crave salty foods and suffer from headaches. Modalities:

Aggravation: Heat, sun exposure. Amelioration: Open air, cold applications.¹⁶

7.Causticum

Symptoms: Molluscum lesions that are hard, painful, and located on areas prone to friction, such as under the arms or around the neck. Profile: Suitable for individuals who are sympathetic, sensitive, and often suffer from chronic conditions like warts and joint pains. Modalities:

Aggravation: Cold, dry weather.

Amelioration: Warm, humid conditions.15

8.Sulphur

Symptoms: Itchy, inflamed lesions that may become infected. Skin is often dry and scaly.

Profile: Ideal for individuals who are warm-blooded, often seeking cool environments, and have a tendency for skin eruptions and itching. Modalities:

Aggravation: Heat, bathing.

Amelioration: Cold applications, open air.16

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