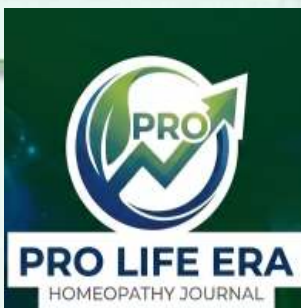




Ichthyosis Vulgaris & Its Homoeopathic Management

Abstract-Background Information-

Filaggrin (FLG) gene mutations cause Ichthyosis Vulgaris, a genetic skin condition that causes thicker, scaly, and dry skin. Homoeopathy provides a comprehensive approach, while conventional therapy concentrates on hydration and keratolytics. The goal is to investigate the pathogenesis, clinical manifestation, and homoeopathic treatment of Ichthyosis vulgaris.

Methods-A study of the literature on homoeopathic remedies, symptoms, and genetic reasons.

Results-By targeting the underlying cause as well as individual vulnerability, homoeopathic medicines including *Arsenicum iodatum*, *Hydrocotyle asiatica*, *Petroleum*, and *Kali sulphuricum* can reduce symptoms. Changes in lifestyle also help with management.

Conclusion-Although further study is required, homoeopathy offers an efficient supplementary method for managing Ichthyosis vulgaris.

Keywords-Homoeopathy, Skin Conditions, Holistic Treatment, Ichthyosis vulgaris, and Filaggrin mutation.

Introduction-Ichthyosis Vulgaris, also known as 'Fish Scale Disease', is a skin disorder that causes the skin to become thick, scaly, and dry. A crucial protein for the function of the epidermal barrier is 'Filaggrin'. Ichthyosis has been linked to mutations in the gene that codes for filaggrin (FLG) [2]. Most instances of ichthyosis vulgaris start in childhood and are inherited [1]. The majority of people have a hereditary type of ichthyosis, which is caused by a gene mutation that is frequently passed on from parents. On the other hand, some persons get acquired (nongenetic) ichthyosis as a result of taking certain drugs or having another medical condition. Although there isn't a cure for ichthyosis at this time in conventional medicine, research is being done and there are therapies to help control the symptoms. [3]

The holistic management of ichthyosis vulgaris is provided by homoeopathy, which emphasises natural therapies and customised

care. There are a number of homoeopathic medicines that reduce symptoms and improve skin health. Some of the effective medicines based on symptoms of Ichthyosis are *Arsenicum iodatum*, *Sepia succus*, *Hydrocotyle asiatica*, *Petroleum*, and *Kali sulphuricum*.

Epidemiology-As the most prevalent form of ichthyosis, ichthyosis vulgaris affects around 1 in 100 to 1 in 250 people and accounts for more than 95% of cases. It usually manifests during infancy or early childhood and becomes better as people age. Eight to ten percent of the general population has the FLG gene mutation, which is a major cause of ichthyosis vulgaris. The types of mutations differ depending on ancestry. While '3321delA' is widespread in Asians and nonexistent in Europeans, 'R501X' and '2282del4' are common in Europeans. Certain mutations are present in both groups, such as 'E2422X'. [4]

Etiology & Athophysiology-Heterozygous loss-of-function mutations in the FLG gene cause ichthyosis vulgaris by disrupting the epidermal barrier and resulting in a filaggrin deficit. Profilaggrin, encoded by FLG on chromosome '1q21', is converted to filaggrin during epidermal development. Filaggrin is essential for the integrity of the skin's barrier, hydration retention, and defence against infections and allergies.

Atopic dermatitis (AD), hand eczema, contact dermatitis, and infections (such as *Staphylococcus aureus* and herpes virus) are all made more likely by FLG mutations, which also increase skin permeability and cause greater water loss and pH changes. Individuals with FLG mutations in AD have more severe symptoms and are more sensitive to allergies.

Ichthyosis vulgaris has varied expressivity and 83%-96% penetrance, with an autosomal semidominant inheritance pattern. Different cultures have different FLG mutations; Europeans tend to have 'R501X' and '2282del4', Asians have '3321delA', and 'E2422X' was present in both. Defects in the epidermal barrier and decreased production of filaggrin are caused by more than 60 loss-of-function mutations, including frameshift and nonsense variants. [4]

Clinical Presentation-The word "ichthyosis" comes from the Greek word "ichthys," which means fish, because the disease is characterised

by thickened, dry, and scaly skin that resembles fish (*hyperkeratosis*). Ichthyosis vulgaris is most commonly characterised by xerosis (dry skin), partial or complete skin lesions, palmoplantar hyperlinearity, keratosis pilaris, generalised scaly dermatosis without erythema, and different degrees of erythroderma. However, despite having dry skin, people with ichthyosis vulgaris do not show obvious symptoms of irritation.

The majority of instances of Ichthyosis vulgaris completely present by early childhood, with symptoms first appearing in infancy. Hyperkeratotic plaques with fissures on the palms and soles, ranging in severity from moderate xerosis (dry skin) to severe scaling (lizard skin), might jeopardise neurovascular integrity if left untreated.

Mild instances might not be identified. Due to a total lack of filaggrin, severe instances (homozygous mutations) exhibit massive adherent scales on the trunk and lower limbs along with chronic, persistent symptoms.

Incomplete penetrance and milder, varied symptoms are seen in heterozygous carriers. In colder areas, symptoms get worse; in warmer climates, they get better. Higher trans-epidermal water loss (TEWL) and more significant epidermal gene expression alterations are observed in homozygous individuals [4].

Differential Diagnosis-•Contact dermatitis

•Eczema, •Drug allergies, •Psoriasis

•Photo Dermatitis

Treatment-Hydrating the skin and using an ointment to stop evaporation are the primary treatment methods for Ichthyosis. An efficient treatment alternative is a urea-based emulsion, which is made up of 10% urea, natural moisturizing agents, and ceramides and is used twice a day. For certain people, topical retinoids and alpha-hydroxy acids may be beneficial. Topical retinoids work by inhibiting keratin production, increasing mitosis and turnover, and decreasing the cohesion of epithelial cells. For pruritus, mild topical steroids could be helpful. AI may improve if the underlying systemic illness is treated. [5]

Homoeopathic Management-The foundation of homoeopathic treatment is constitutional prescription, which takes into account each patient's unique susceptibility and the whole of

their symptoms. In ichthyosis situations, a number of treatments have been proven to be effective:

•**Arsenicum iodatum**-For ichthyosis, *Arsenicum iodatum* is one of the best treatments. A rough surface is left behind when the skin's big scales are markedly exfoliated. Itching is severe and the skin is flaky.

•**Hydrocotyle asiatica**-An other effective treatment for ichthyosis is *Hydrocotyle asiatica*. Both the epidermal layer and the skin's scales are greatly thickened and exfoliated. Scaly edges and round patches on the skin. As an additional prescribing sign, unbearable itching, particularly on the soles.

•**Petroleum**-When the skin is thick, dry, and harsh, and there are fissures, petroleum is recommended. The skin is quite sensitive.

•**Sepia**-Sepia does wonders for ichthyosis. For ichthyosis with a foul odour of skin, intense itching that doesn't go away when after scratching, worse in knee and elbow bends.

•**Kali sulph**-It is the best homoeopathic treatment for ichthyosis, which is characterised by dry, flaky skin with noticeable yellow scales.

•**Platanus occidentalis**-For X-linked ichthyosis with ocular opacity and cataract, *Platanus occidentalis* is recommended.

•**Natrum carb**-Lamellar ichthyosis with photophobia is treated with *Natrum carb*.

•**Clematis erecta**-When red, brown, scaly, or scabby skin appears, *Clematis erecta* is advised. The itching is severe, and washing in cold water makes it worse.

•**Zincum metallicum**-When treating ichthyosis with corneal dystrophy, *zincum metallicum* works well [6]

General Management-•Refrain the patient from taking hot showers or baths as this can further dry the skin.

•Advise the use of cool or lukewarm water for the bath.

•Stop the application of soap, which can make the skin even more dry.

•Advise the use of Cetaphil lotion and over the counter cream formula.

•Applying lotion containing alpha-hydroxyl acid after gently wiping the skin might increase its moisture content. [7]

Conclusion-Filaggrin (FLG) gene mutations are the main cause of Ichthyosis vulgaris, a chronic skin condition that causes dryness,

scaling, and compromised skin barrier function. Homoeopathy provides a comprehensive and customised approach by treating the underlying tendency as well as symptom alleviation, whereas traditional therapies concentrate on hydration and keratolytics. *Hydrocotyle asiatica*, *Petroleum*, *Kali sulphuricum*, *Sepia*, and *Arsenicum iodatum* are among the remedies that have demonstrated effectiveness in enhancing skin health and reducing pain. Changes in lifestyle, such as adopting healthy skincare practices, also improve management.

Homoeopathy is a useful supplemental treatment for Ichthyosis vulgaris since it not only relieves symptoms but also supports the body's natural healing processes. To fully determine the potential of homoeopathic therapies in treating this illness, more clinical study is required.

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