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JALAUKAVACHARNA IN THE MANAGEMENT OF HERPES ZOSTER

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ABSTRACT

Shingles, also known as zoster or herpes zoster, is a viral disease characterized by a painful skin rash with blister in localised area. Rash heals within two to four weeks however some people develop ongoing nerve pain which can last for month or years, a condition called as post herpetic neuralgia. In *Ayurveda Visarpa* is disease which is having similarity with herpes zoster. *Agneya Visarpa* very much mimic the symptoms of Herpes Zoster, and can be very effectively treated with the help of *Jalukavacharna* as *Rakta Dhatu, Lasika, Twak, Mamsa Dhatu* vitiation and *Vaat, Pitta, Kapha Dosha* is involved in it, and it is also very effective in post herpetic neuralgia. *Jalaukavcharna* is indicated in *Pittaja Vyadhis* and, *Rakta and Pitta* have *Ashrya-Ashrayi Bhav*a so it is effective in treating this type of *Vaat Pitta* predominant *Agneya Visarpa* which mimics Herpes zoster. According to modern point of view therapeutic effect is not from the small amount of blood taken, but from the continued and steady bleeding from the wound left after the leech is detached, as well as the anesthetizing, anti-inflammatory, and vasodilating properties of the secreted leech saliva.

KEYWORDS: Herpes Zoster, *Agneya Visarpa, Jalaukavacharna.*

INTRODUCTION

Shingles, also known as zoster or herpes zoster, is a viral disease characterized by a painful skin rash with blisters in a localized area.[1] Causative agent for shingles is the varicella zoster virus-a double stranded DNA virus. Varicella zoster virus has a high level of infectivity and has a worldwide prevalence.[2] Typically the rash occurs in a single, wide strip either on the left or right side of the body or face. Two to four days before the rash occurs there may be

tingling or local pain in the area. Otherwise there are typically few symptoms though some may have fever, headache, or feel tired. The rash usually heals within two to four weeks; however, some people develop ongoing nerve pain which can last for months or years, a condition called post herpetic neuralgia. In those with poor immune function the rash may occur widely. If the rash involves the eye, vision loss may occur.

Shingles is due to a reactivation of varicella zoster virus (VZV) within a person's body. The disease chickenpox is caused by the initial infection with VZV. Once chickenpox has resolved, the virus may remain inactive in nerve cells. When it reactivates, it travels from the nerve body to the endings in the skin, producing blisters. Risk factors for reactivation include old age, poor immune function, and having had chickenpox before 18 months of age. How the virus remains in the body or subsequently re-activates is not well understood. Exposure to the virus in the blisters can cause chickenpox in someone who has not had it but will not trigger shingles. Diagnosis is typically based on a person's signs and symptoms. Varicella zoster virus is not the same as herpes simplex virus; however, they belong to the same family of viruses.

Sign and symptoms

The earliest symptoms of shingles, which include headache, fever, and malaise, are nonspecific, and may result in an incorrect diagnosis. These symptoms are commonly followed by sensations of burning pain, itching, hyperesthesia (oversensitivity), or paraesthesia ("pins and needles": tingling, pricking, or numbness). Pain can be mild to extreme in the affected dermatome, with sensations that are often described as stinging, tingling, aching, numbing or throbbing, and can be interspersed with quick stabs of agonizing pain.[3]

Shingles in children is often painless, but people are more likely to get shingles as they age, and the disease tends to be more severe.[4]

In most cases after one to two days, but sometimes as long as three weeks, the initial phase is followed by the appearance of the characteristic skin rash. The pain and rash most commonly occurs on the torso, but can appear on the face, eyes or other parts of the body. At first the rash appears similar to the first appearance of hives; however, unlike hives, shingles causes skin changes limited to a dermatome, normally resulting in a stripe or belt-like pattern that is limited to one side of the body and does not cross the midline. Zoster sine herpete ("zoster

without herpes") describes a person who has all of the symptoms of shingles except this characteristic rash.

Disseminating shingles

It is defined as more than twenty skin lesions appearing outside either the primarily affected dermatome or dermatomes directly adjacent to it. Besides the skin, other organs, such as the liver or brain, may also be affected (causing hepatitis or encephalitis respectively), making the condition potentially lethal.[5]

PATHOPHYSIOLOGY

The causative agent for shingles is the varicella zoster virus (VZV) – a double-stranded DNA virus related to the Herpes simplex virus. Most individuals are infected with this virus as children which causes an episode of chickenpox. The immune system eventually eliminates the virus from most locations, but it remains dormant (or latent) in the ganglia adjacent to the spinal cord (called the dorsal root ganglion) or the trigeminal ganglion in the base of the skull. The disease results from virus particles in a single sensory ganglion switching from their latent lysogenic cycles to their active lytic cycles. Unless the immune system is compromised, it suppresses reactivation of the virus and prevents shingles outbreaks. Why this suppression sometimes fails is poorly understood, but shingles is more likely to occur in people whose immune systems are impaired due to aging, immunosuppressive therapy, psychological stress, or other factors. Upon reactivation, the virus replicates in neuronal cell bodies, and virions are shed from the cells and carried down the axons to the area of skin innervated by that ganglion. In the skin, the virus causes local inflammation and blistering. The short- and long-term pain caused by shingles outbreaks originates from inflammation of affected nerves due to the widespread growth of the virus in those areas.[6]

Ayurveda view

In *Ayurveda Agneya Visarpa laxana* mimics the symptoms of Herpes zoster.

Agneya Visarpa Laxana

In this type *Vaat* and *Pitta* predominance is found, fever, vomiting, diarrhoea, thirst, dizziness, splitting pain in regional glands, diminished digestive power, respiratory distress and anorexia, patient feel as if whole body is covered with burning charcoal, sites where *Visarpa* spread, get quickly effected with blisters.

On account of fast spreading tendency, it quickly pervades the *Marma* (Vital areas of body), which leads to increase of *Vata dosha*, which leads to pain all over the body. Which can further leads to unconsciousness, loss of sleep, dyspnoea, and hiccoughs. The patient who has reached this stage does not find relief by any measures. Patient remain restless and attempt to lie down on ground or sit or adopt any other posture result in extreme pain. Mental confusion and bodily inactivity is present and finally it leads to death.

Management

The aims of treatment are to limit the severity and duration of treatment, shorten the duration of shingle episode and reduce complications. Symptomatic treatment is often needed for the complication of post herpetic neuralgia. *Ayurveda* while explaining treatment of *Visarpa* has used different approach to treat it depend on the constitution of person. As the main vitiated *Dosha* in *Agneya visarpa* is *Vaat* and *Pitta Pradhan*, and *rakta* is main vitiated *dushya*, so *pittashamak chikitsa* is desired line of treatment. *Jalaukavcharna* is not only advised for vitiation of *Pitta Doshas* but also helps in alleviating the pain which is seen in form of neuralgic pain in Herpes Zoster patient.

Table 1:

Mode of Action	Substance
Analgesic and anti-inflammatory effect	Antistasin, Hirustasin, ghilantens,eglin C, Leech Derived Tripase Inhibitor, complement C1 inhibitor, guamerin and piguamerin, carboxypeptidase inhibitor, bdelins and bedastasin
Extracellular matrix degradation	Hyaluronidase and collagenase
Increasing blood flow	Acetylcholine, histamine like molecules
Inhibition of platelet function	Saratin, calin, apyrase
Anticoagulant effect	Hirudin, gelin, factor Xa inhibitor, destabilase, neww leech protein 1,whitide, whitmanin,
Antimicrobial effect	Destabilase, chloromycetyn, theromacin, theromyzin, and peptide B

DISCUSSION

In treatment of *Visarpa* as per *Ashtang Hridaya Raktamokshana* should be the one of the line of treatment[7] as *Rakta Dushti* is main factor for the pathogenesis of disease. The other *Shodhana* procedure can be *Vaman, Virechana.* According to predominance of *Dosha* associated with *Rakta*, different method of *Raktamokshana* should be conducted. Raktamokshana act as an autoimmune enhancing property, so develop the resistance against the Nita group of Virus and streptococcus pyogens. Here in *Agneya Visarpa* association of *Pitta Dosha* is there, so *Jalukavacharna* should be done.

Many scientific study has been done to shed light on the effect mechanism of leeches. Although more than 100 particular protein with different molecular masses are observed in leech secretion, only few have been identified that have a major active role.[8] The effect mechanisms are divided into six types to make them more understandable, but these mechanisms are closely related to each other and should be evaluated as a whole (Table 1). Following a leech bite, it has to establish a sucking pathway (extracellular matrix degradation); inhibit adhesion, aggregation, and coagulation (inhibition of platelet functions, and anticoagulant effect); increase blood flow; protect itself (antimicrobial activity); and avoid detection (analgesic and anti-inflammatory effects).

CONCLUSION

Herpes zoster is a viral disease and can be correlated with *Agneya Visarpa* is very effectively treated with the help of *Jalaukavacharna* as it not only indicated in *Pitta Dosha* vitiation but also the severity of pain can be reduced because of virtue of its anti-inflammatory and analgesic effect.

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