



A Study Of Jalaukavacharana (Leech Therapy) On Vicharchika (Eczema): A Case Report.

Suryawanshi Ravikumar Shyam¹, Kale Rashmi A², Narkhede Yogesh D³

¹ Assistant professor, Department of shalya, Vidarbha Ayurved Mahavidyalaya, Amravati, Maharashtra, India

² Associate Professor, Department of shalya, Maharashtra Arogya Mandals Sumatibai Shaha Ayurved Mahavidyalay, Hadpsar, Pune, Maharashtra, India

³ Assistant professor, Department of shalya, Maharashtra Arogya Mandals Sumatibai Shaha Ayurved Mahavidyalay, Hadpsar, Pune, Maharashtra, India

***Corresponding author:**

Dr. Suryawanshi Ravikumar Shyam;

Email - ravisuryawanshi4601.ms@gmail.com

Abstract:

Introduction : ‘Vicharchika’(ECZEMA) is described under KshudraKushthain Ayurvedicclassics, also mentioned as a curable disease yet the relapsing nature of thisdisease makes it much harassment for patient and troubles some for physician too Jalauka vacharana karma by Jalauka (Leech) are considered as the ideal method to expel out the vitiated blood safely, quickly and effectively. Acharya Charaka has advocated, about the line of treatment ofKushtha, Jalaukavacharana karma for Pitta pradhanadosha and Raktapradhanadusti.

Aims and Objectives: To assess different clinical aspect of ‘Vicharchika’(ECZEMA) described in Ayurveda as well as Modern medical science and to assess the clinical effect of Jalaukavacharana karma

Case Report : Here we report a case of 38 Yr Male Patient Came At Opd Of Sanegururji Hospital ,pune-28 was suffered from symptoms like Kandu(+++),Twakdaran (+++) Dah (+++), since 1 month was having past history of pain ,itching since 5-6 month is a k/c/o hypertension since 1 yr on the anti-hypertensive tablet amlong 5mg Oriented On local examination: There was Swelling, discoloured patches ,hard on touch Management- four sittings of jalaukavacharana karma were carried out in consecutive 4 weeks. No. of Jalauka applied was decided on the basis of the size of lesion.(eg. 1cm=1 leech). Total 8 leech requiredAfter terapy ,kandu + 0, twakdaran =+,dah =o & relief in sing & symptoms of vicharchika patient satisfied with leech therapy **Result:** A Case of vicharchika treated with Jalaukavacharana shows improvement in skin texture ,luster, decrees in lesion size & relief in itching And other presenting compliant of patient.

Conclusion: in this case study it was observed that Jalaukavacharana had significant improvement in sign and symptoms of vicharchika (eczema), the therapy was found safe for practice. It was accepted as well as tolerated by patient .no oblivious side effects were observed. The overall compliance to the leech therapy was good ,thus it can be concluded that is an effective & safe treatment in management of vicharchika(eczema).

Key Words: Jalaukavacharana (leech therapy), vicharchika (eczema), Atopic dermatitis.

Introduction:

Skin cover the outer world of a person. It plays a vital role in the body’sgeneral working. The unbroken skin is the nature’s dressing over the body’sit acts as an effective barrier against the entry of diseases and its damage results in a whole host problems.The study of ayurvedic classics reveals that all skin diseases were considered as one of the broad heading of “**Kushtha**”.

‘**Vicharchika**’(ECZEMA) is described under **KshudraKushthain** Ayurvedicclassics, also mentioned as a curable disease yet the relapsing nature of thisdisease makes it much harassment for patient and troubles some for physician too. Vicharchika is not a life threatening, it makes worried thepatient due to its appearance, severe itching disturbing routine and itsnature susceptible to be chronic . According to Charaka, the ancient medical authority, Vicharchika is

characterized by skin eruption with dark discoloration, itching and profusedischarge. Authors like Vagbhatta, Madhavakara and Bhava Mishra are in agreement with him whereas Sushruta, the Father of Surgery has mentioned the symptoms as dryness of the skin with intense itching and marked linings. Similarly difference of opinion exists between the other texts like Kashyapa, Harita, Bhela etc. All the authors are in conclusion with the fact that itching and eruption are cardinal symptoms and they always present in this pathological conditions.

Atopic dermatitis or eczema is a chronic or chronically relapsing hypersensitive manifestation of skin with itching as a predominant feature. It is a term for a group of medical conditions that cause the skin to become inflamed or irritate. Eczema is characterized by itchy erythematous, vesicular, weeping and crusting patches. The term eczema is broadly applied to a range of persistent skin conditions. These include dryness and recurring skin rashes that are characterized by one or more of these symptoms –redness, skin swelling, itching and dryness, crusting, flanking, blistering, cracking, oozing or bleeding. The cause of eczema is unknown but is presumed to be a combination of genetic and environmental factors.¹The hygiene hypothesis postulates that the cause of asthma, eczema and other allergic diseases is an unusually clean environment . It states that exposure to bacteria and other immune system modulators is important during development. The diagnosis of eczema is based mostly on the history and physical examination. However `patch test `are used in diagnosis of allergic dermatitis.²Some flare ups may worsen the conditions like stress, sudden temperature changes, sweating or overheating, scratchy clothing materials eg. Wool ,harsh detergents, soap and solvents. Gradual increase in the prevalence of AD has been observed recently and it can be ascribed to environmental changes to rapid development all over the world. The upward trend is also true in Indian context in last four decades. As the prevalence from different studies ranged from 2.4% -6% all over India and changes with different parts of country.³

The management by modern medicine aims to control symptoms by reducing inflammation and relieving itching. For which moisturizing agents, anti-inflammatory, anti-histaminic, immune suppressants, are used. The patient who doesn't respond to medicine are advised for phototherapy⁴

Jalaukavacharana karma by Jalauka (Leech) are considered as the ideal method to expel out the vitiated blood safely, quickly and effectively. Acharya Charaka has advocated, about the line of treatment ofKushtha, Jalaukavacharana karma for Pitta pradhanadosha and Raktapradhanadusti. (Ch. Chi. 7/39) .

Case Report : Here we report a case of38 Yr Male Patient Came At Opd Of Sanegururji Hospital ,pune-28 was suffered from symptoms like Kandu(+++),Twakdaran (+++) Dah (+++), since 1 month was having past history of pain ,itching since 5-6 month is a k/c/o hypertension since 1 yr on the anti-hypertensive tablet amlong 5mg , No history of surgery in past , No any family history, was having mixed diet, addicted to alcohol and smoking, disturbed sleep, emotional stress on General examination--General condition fair, afebrile, Pulse:86/min

b.p.-112/78 mmhg, RS:AEBE clear, CVS:s1s2 normal, Urinary system: NAD, Stool: NAD

Nail: pallor, Conjunctiva: pallor, Tongue: Coated, Gastrointestinal system: loss of appetite discomfort in abdomen liver not palpable.CNS: Conscious and Oriented On local examination: There was Swelling, discolored patches ,hard on touch. Routine Laboratory investigation are normal except---

	Before leech therapy	After leech therapy
WBC	1100	8000
ESR	22	28

Differential diagnosis:Other Types OfKushtha& other types of modern skin diseases

Managment- four sittings of jalaukavacharana karma were carried out in consecutive 4 weeks. No. of Jalauka applied was decided on the basis of the size of lesion.(eg. 1cm=1 leech). Total 8 leech requiredAfter therapy ,kandu + 0, twakdaran =+,dah =o & relief in sing & symptoms of vicharchika patient satisfied with leech therapy **Result:** A Case of vicharchika treated with Jalaukavacharana shows improvement in skin texture ,luster, decrease in lesion size & relief in itching And other presenting compliant of patient.

Discussion:

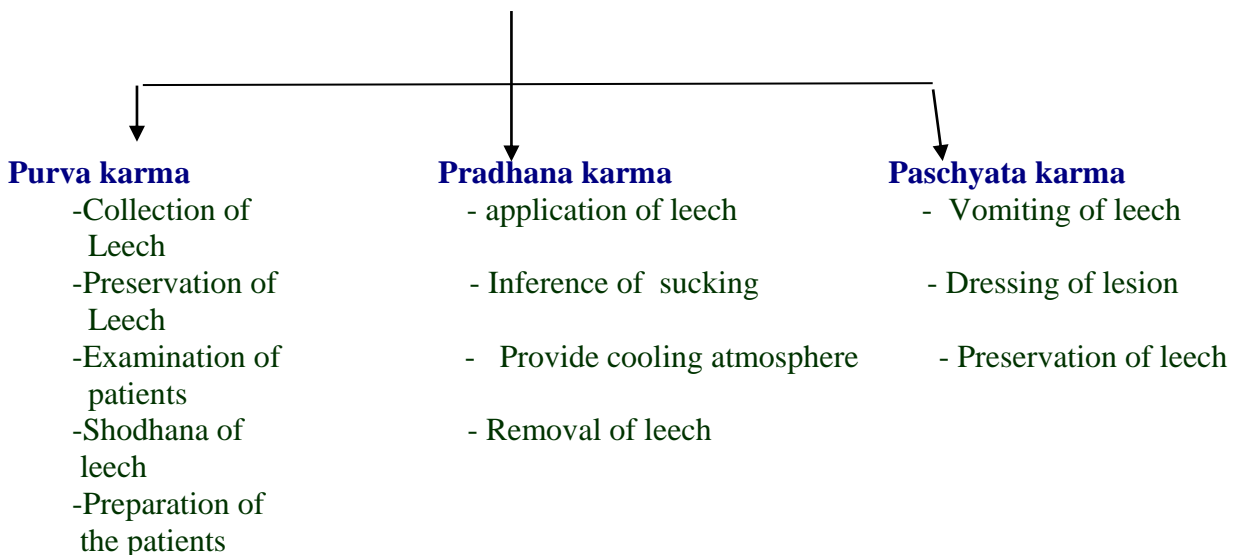
Raktamokshana : In Charaka Samhita, it is mentioned that, most of disease can be managed with Shodhana (Bio-purification method), Shamana (pacification, palliative treatment) NidanaParivarjanam, Vicharchika a chronic type of Kushtha; also can be managed by i.e.Shodhana, Shamana, Nidana Parivarjanam by removing the causative factors and braking pathogenesis.

Shodhanamay be in the mode of Jalaukavacharana,Sushruta counts the benefits of Raktamokshana for the Chikitsapurpose, it is not only purifies the channels but also let the other partsbecome free from disease and action is faster than other remedies. (Su. Chi.1/44) Charka has enumerated RaktajaRoga and their treatment by ShonitavasechanaSushruta has dealt in clear detail with Raktamokshana and its type.He described special chapter only for Jalaukavacharana. (Su. Su. 13), typesof Jalauka, their habitat etc. has been described first time in detailed in this chapter.

Indication :

Dosha	Pitta (Ch.), deep located (GrathitaRakta) (Su. Su.) Person having most delicate constitution (Su. Su.)
Dhatu	Rasa, Rakta, Lasika, Mamsa
Prakriti	Sukumar, child, woman, old man, king like etc.
Diseases	Kushtha, Arshaetc
Research	Piles venous congestion, manifestation of ear and nose, headache, whooping cough, thrombosis, brain tumour, skin disease, tonsillitis, swelling and local inflammation etc.
Kala	Sharadaritu (Autumn), not in extremely hot or cold season

Jalauka V a c h a r a n a k a r m a
(Procedure for leech application)



Selection of Patient: Sushruta has suggested Raktamokshana by Jalauka especially for king, rich people, children, old aged, coward weak, females and delicate persons (Su. Su. 13/3). Contraindication of Raktamokshana can be considered as contraindication of Jalaukavacharana. Only Vagbhata has mentioned diseases where Jalaukavacharana is indicated viz. – Gulma, Arsha, Vidradhi, Kushtha, Vatarakta, Galaroga, Netra Roga, VishaDanshta and Visarpa. (A. S. Su.) At first, selection of the patient is suffering from a disease which requires the application of leeches. The site of lesion, if not previously painful or ulcerated should be roughened by dusting it over with a composition of loose earth and pulverized cow dung and cleaned up. Then the leeches should be taken out of their pots and sprinkled over with water saturated with mustard seed and pasted turmeric or butter milk. Jalauka should be plied to the affected part. Preparation of patient and Application of Leech, Jalauka Sticking, Removal of Leech Pachhat karma, Dressing up, Preservation of Leech, Process for Reuse of Leech was done by standard Ayurveda protocols.

Limitations and solutions in leech therapy: The leeches are very useful in micro-surgical practice i.e. plastic and graft surgery. But there is significant risk of infections, Hirudomedicinalis has endosymbiotic bacteria almost 20% of infectious complications seen after leech therapy. So, appropriate antibiotic prophylaxis should be administered to the patient who need leech therapy. There are two problems with leech therapy. The squeamishness factor, The possibility of bacterial infection, As leeches cannot be sterilized, Historical account warns of the transmission of syphilis, AIDS, hepatitis, after the re-application of leeches used on infected patients. So leeches should be used single time then they should be disposed away. The leech therapy may not be used in case of –Haemorrhagic diathesis (hymophilia) Many leeches are held under suspicion to act as vectors for Diseases

Probable Mode Of Action Of Jalaukavacharana : Jalauka expels out vitiated blood, very sharply from selected part of the body. So, Leech therapy (Jalaukavacharana) takes a pride of place in the list of Panchakarma like Shodhana Chikitsa from the sunrise of medical history. Saliva of Jalauka; containing properties of anti-coagulant, analgesic, anesthesia etc are much helpful in removing congested blood from local lesion quickly and from general circulation also. Dead cells with superficial layer are also been removed from the skin due to rubbing and blood letting process. More over, regeneration of new vessels with pure blood circulation at the site of lesion, may clean up the real skin layer and so derangement of lesion like, Pidika, Kharata, Rukshata may reduce.

The study is purely clinical hence, it becomes difficult to give definite conclusions on the mode of action of Jalauka, but on the basis of available literature and its explanation, probable mode of action can be postulated. Vicharchika is a type of Kushtha having Tridosha prakopa, pradhana Raktadushti and Chirakari manifestation. Sushruta has given great emphasis to **Jalaukavacharana** in the therapy for Raktapradoshaja Vyadhi, Tridosha Prakopajanya and Chirakari diseases. For excess vitiated Dosha, Shodhana is must (Ch. Vi. 3/44). Chakrapanidatta opines that Shastra karma is not advisable to expel out the blood as it may damage the Sparshanendriya (Chakrapani on Ch. Chi. 7/54). Among the Anushastras Vagbhata considers Jalaukas (leeches) as the best as all places of the body for all the persons. Sushruta stated that Raktamokshana is not only purifies the channels, but also let the other parts become free from diseases and action is so fast than other remedies. Sushruta recommended Jalaukavacharana better for the superficial blood. Vitiated Rakta may be washed-out by application of Leeches. Jalauka sucks the impure blood only with ideal example of Swana by Vagbhata. Leech application has counter irritant effect on the lesion, which creates new cellular division which takes place removing dead cell layer, and result in reduction of local Swelling and Lichenification. Leech sucks blood from restricted area and when leeches applied in only pathogenic area so it can be said that leech expelled blood from more vitiated area than other area. Hence, it can be said that leeches give best effect in Vicharchika by expelling the morbid, vitiated Doshas and Dhatus. But the effect of therapy is not only by expelling the vitiated blood but leech also emits some enzymes in the wound. So Jalaukavacharana has also provided – Normalization and improvement of capillary as well as collateral blood circulation, Expressed anti-inflammatory effect, Analgesia and anesthesia effect through saliva, Immuno-stimulation and immuno-modulating effect, Early wound healing effect. This action may be due to effect of saliva of Leech which containing enzymes like Hirudin which

works as anticoagulant & diuretics, antibiotic action, Calin which prevents blood coagulation, Eglin, Hyaluronidase acts as antithrombin, antitrypsin and antichymotrypsin etc.

As per some modern texts Leech therapy has established itself as an alternative remedy for the treatment of vascular disorders, since leech saliva can temporarily improve blood flow and ameliorate connective tissue hyperalgesia^{5,6,7}. By the year 1997, a novel antithrombotic and anticoagulant pharmaceutical preparation was released to the Russian markets under the trade name “Piyavit”, which consisted of the medicinal leech saliva extract. The product was prescribed as thrombolytic and antiplatelet. Clinical studies revealed that it can reduce blood hypercoagulability with an antiinflammatory effect in patients with thrombophlebitis^{9,10}. Likewise, patients with phlebitis and Eczema who received topical leeching exhibited better walking ability, and less itching less pain and minor leg swelling, along with near-normal leg skin color^{11,12}. In such cases, medics usually apply 4-6 leeches directly to the affected area. Many therapists used leeches for the healing of Eczema, hypertension, varicose veins, hemorrhoids, gonarthrits, and secondary ischemia-related dermatosis^{5,13,14}.

Complications :

Infection is the most common complication of leeching and occurs in 2-36% of the patients¹⁵. Several bacterial strains have been encountered in these infections involving *Aeromonas* spp., *Pseudomonas* spp. and *Vibrio* spp. agent is the Gram-positive rod, *Aeromonas hydrophila*, which can cause pneumonia, muscular necrosis, flap failure and even septicaemia. Because *A. hydrophila* are resistant to penicillins and the first generation of cephalosporins, the treatment regimen of such infections should contain aminoglycosides, fluoroquinolones^{8, 13}. On the other hand, there is no reports on the leech therapy-transmitted diseases, even though, physicians who practice leeching are advised to use a leech once⁵. Many reports outlined local hypersensitivity conditions including itching, blister forming, ulcerative necrosis and even local tissue damage (flap death), which might result from the existence of some toxins in leech saliva¹³. Blood loss because of the prolonged hemorrhage and skin marks (scars) left by impaired healing of leech bites are also reported as postleeching complications¹⁵.

Conclusion:

in this case study it was observed that Jalaukavacharana had significant improvement in sign and symptoms of vicharhchika (eczema), the therapy was found safe for practice. it was accepted as well as tolerated by patient. no obvious side effects were observed. the over all compliance to the leech therapy was good, thus it can be concluded that is an effective & safe treatment in management of vicharchika (eczema).

References:

1. Eczema (Dermatitis), sign and symptoms, available on <http://en.wikipedia.org/wiki/Eczema>
2. Christopher Haslett, Edwin R Chilver, Nicholas A Boon, Nicki R Colledge, Skin Disease, Davidsons principles and practice of medicine, Chapter 21, 19th edition, Pub Churchill Livingstone, P 1056
3. Aminder J Kanwar and Dipankar De, Indian J Dermatol. 2011 Sep-Oct;56(5):471-475
4. Christopher Haslett, Edwin R Chilver, Nicholas A Boon, Nicki R Colledge, Skin Disease, Davidsons principles and practice of medicine, Chapter 21, 19th edition, Pub Churchill Livingstone, P 1074
5. Michalsen A, Roth M, Dobos G, Aurich M. Stuttgart, Germany: Apple Wemding; 2007. Medicinal Leech Therapy.
6. Knobloch K. Leeches in microsurgery – An evidence-based approach. In: Kini RM, Clemetson KJ, Markland FS, McLane MA, Morita T, editors. Toxins and Hemostasis. Netherlands: Springer Science; 2011. pp. 735–45.
7. Munshi Y, Ara I, Rafique H, Ahmad Z. Leeching in the history – A review. Pak J Biol Sci. 2008;11:1650–3.

8. 16. Porshinsky BS, Saha S, Grossman MD, Beery Ii PR, Stawicki SP. Clinical uses of the medicinal leech: A practical review. *J Postgrad Med.* 2011;57:65–71.
9. Corral-Rodríguez MA, Macedo-Ribeiro S, Pereira PJ, Fuentes-Prior P. Leech-derived thrombin inhibitors: From structures to mechanisms to clinical applications. *J Med Chem.* 2010;53:3847–61.
10. Baskova IP, Korostelev AN, Chirkova LD, Zavalova LL, Basanova AV, Doutremepuich C. Piyavit from the medicinal leech is a new orally active anticoagulating and antithrombotic drug. *Clin Appl Thromb Hemost.* 1997;3:40–5.
11. Cherniack EP. Bugs as drugs, part two: Worms, leeches, scorpions, snails, ticks, centipedes, and spiders. *Altern Med Rev.* 2011;16:50–8.
12. Walsmann P, Markwardt F. On the isolation of the thrombin inhibitor hirudin. *Thromb Res.* 1985;40:563–9.
13. Srivastava A, Sharma R. A brief review on applications of leech therapy. *Arch Appl Sci Res.* 2010;2:271–4.
14. Sun H. From leeching to anaphrodisiacs: Treatments of epilepsy in the nineteenth century. *Univ Toronto Med J.* 2007;84:107–10.
15. Green PA, Shafritz AB. Medicinal leech use in microsurgery. *J Hand Surg Am.* 2010;35:1019–21.