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# PAIN MANAGEMENT WITH LEECH THERAPY IN VATARAKTA (GOUT): A CASE STUDY

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#### **ABSTRACT**

In the present era changing life style has created several disharmonies in the biological system of human beings. Vatarakta is one of the commonest life style disorder caused by vitiation of rakta and vata producing different types of signs and symptoms like joint pain, swelling, tenderness, redness and numbness etc. This disease can be compared with Gout in modern as Acharya Sushruta has mentioned almost similar features. It has got sangh type of srotodusti hence applying leech to the vicinity of the disease origin and pain leads to removal of srotodusti resulting to ease. In Ayurveda Acharya Sushruta has described twelve types of leeches out of which six types are non-poisonous. Among these only five types are used in human beings and one type is used in animals only. A few cases of gout were thoroughly examined and treated with leech therapy. Leech was applied over the most tendered and painful site in each case for 20-25minutes. Same procedure repeated after one week for total period of 4 weeks. Almost all the patients got completely relieved after 4 sitting of leech therapy. No recurrence and no complications were found in the patients during follow up period of six months. So this can be an ideal therapy to be adopted for pain management in acute gouty arthritis, as it helps not only in reducing pain but also reduced swelling and redness without any side effects.

**KEYWORD:** Leech (jalauka), vatarakta, pain, gout, srotodusti.

#### INTRODUCTION

Vatarakta has been described by Acharya Sushrut in Vata Vyadi Nidan, in this blood gets vitiated, which obstructs the passage of vayu resulting severe aggravation of vayu and further vitiates the blood which is already excited. Thus combined with vitiated vayu and due to its predominance it is known as Vatarakta. Positioned in foot, ankle and some times in palms, it spreads all over the body like aggravated rat's poison. The disease is incurable if skin is peeled off up to knee and is cracked and discharging along with complications such as wasting of vitality, musculature etc. However, that up to one year duration is palliable.

The big toe (first meta-tarso phalangeal joint) is the classic site for gout but one third of patients may get their first attack at foot, ankle, knee or hand joints. The attack is acute, it starts in the night, the joint surrounding tissues are swollen, hot, red, shiny and extremely painful .Vitiated blood should be let out by vein puncture, application of leeches etc as vein puncture covers half of the treatment in surgery<sup>3</sup>. In this disease vitiated blood resulting from obstruction to the channels, should be let out from the patients repeatedly in small quantities so as to forestall excessive aggravation of vata.

#### PURPOSE OF THE STUDY

To prove the efficacy of leech therapy in vatarakta for pain management.

#### MATERIAL AND METHODS

# **Selection criteria**

# Criteria for inclusion of the patients

- 1. Patients aged between 18-50 years.
- 2. Patients not having any other systemic disease.
- 3. Bleeding time and clotting time should be within normal range.
- 4. Patients serum uric acid level less than or equal to 7mg/dl.
- 5. Patients having Hemoglobin (Hb) 10gm% or above.
- 6. Patients not on any anticoagulant therapy.
- 7. Duration of the disease should not be more than one year.

# Criteria for exclusion of the patients

- 1. Patients below 18 years and above 50 years.
- 2. Patients with Hb less than 10gm%.
- 3. Patient with uric acid level greater than 7mg/dl.
- 4. Patients with bleeding disorders.
- 5. Patients with history of trauma.

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#### Materials required for application of leech

- 1. Jalauka or non- poisonous leech 3-5 in number.
- 2. Gauz pieces, cotton and cotton pads.
- 3. Haridra powder (Curcuma longa).
- 4. Rock salt.
- 5. Madhuyashti powder (Glycyrrhiza glabra).
- 6. Shatdhout ghrita.
- 7. Kidney trays.
- 8. Disposable Needle.
- 9. Gloves.
- 10. Table.
- 11. Leech holding forceps.

# Method of the leech application

Active leeches should be taken and applied on the most painful affected part with the help of leech forceps or fingers. To make the leech more active, medium sized kidney tray with water is taken and mixed with about one spoon of haridra powder. The leeches are taken out from the aquarium with the gloved hand and are placed in the tray for few minutes. After that they are shifted to another tray containing clean water and now these active leeches are ready for application.

# Mechanism of action

As the main pathology in Vatarakta is srotodusti due to vitiated rakta and vata therefore by applying leech we remove the srotodusti as it is well versed that leeches first suck the vitiated blood resulting pacification of vata. Once vata dosha is in balance and vitiation is removed pain and other sign, symptoms will automatically vanish as the saying 'there is no pain without exaggeration of vata'.

# CASE STUDY

Six patients of aged between 32years to 48years out of which 4 were females visited Shalya Tantra OPD and Panchkarma OPD of CDL college of Ayurveda Bhagwangarh jagadhari Haryana in 2015 with complaints of severe pain, tenderness at the base of big toe with slight swelling, redness in surrounding tissues. Pain usually starts in the night off and on for last 10 months in average. The patients were examined thoroughly and investigated for Hb, TLC, DLC, ESR, FBS, BT, CT, RFT, Uric acid.

# Preparation of the patient

Noted down the vitals like temperature, pulse rate, respiration rate and blood pressure, preparation of the part done, consent of the patient taken and procedure explained to the patient. Materials required during procedure displayed.

# Leech application procedure

Positioning of the patient in supine position on tipping table, cleaning and drapping done. The prepared part dried with dry gauze piece and non poisonous active leech applied over the affected part by picking up with the help of thumb and index finger with gauz piece. As soon as the leech attaches itself to the site, it starts

sucking the blood. If the leech fails to attach itself to the skin then other leech is applied or a puncture is made with a needle on the site to make it bleed and leech is reapplied.

# Treating the leech during procedure

When the leech starts sucking the blood as evidenced by opening its mouth like horse's hoof and raising its shoulders, it is draped by a wet cotton gauze except mouth portion. Further at frequent intervals small amount of water is poured on the leech to keep it moist and relaxed. As the leech continues sucking one can observe its body increasing in dimension as well as in length. When it completes sucking, it falls down by itself leaving a mark of inverted y.

# **Observation of the patient**

When the leech therapy is in progress one should closely observe the patient to assure that procedure adopted is proper and the leech is sucking impure blood. The development of itching as well as pain at the site of sucking signifies that now the leech has started sucking the pure blood and therefore the leech has to be removed by dusting the rock salt or haridra powder on the mouth of the leech.

#### Care of the wound

As the saliva of the leech contains hirudin, an anticoagulant, even after the leech gets separated from the site, bleeding continues for a considerable prolonged period. Therefore as soon as the leech gets separated measures to arrest the bleeding as well as wound care should be under-taken. After anointing with shatdhout ghrita or dusting madhuyasti powder the wound is bandaged. Same procedure repeated after one week for total period of four weeks.

#### Follow up

No recurrence and any type of complications were found in the patients during follow up period of six months.

#### RESULT

Almost all patients got completely relieved after 4 sitting of leech therapy there- fore results were very good.

# **CONCLUSION**

Leech therapy can be an ideal therapy for pain management in acute gouty arthritis, as it helps not only in reducing pain but also reduced swelling and redness without any side effects. Though it needs more clinical study on large number of patients with long follow up period.

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