

**AYURVEDIC MANAGEMENT OF BUERGER'S DISEASE – A CASE STUDY****Dr. Sourmi<sup>1\*</sup>, Dr. Vishal Verma<sup>2</sup>, Dr. Mahesh Chandra<sup>3</sup> and Dr. Anjali Tamori<sup>4</sup>**

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**ABSTRACT**

Buerger's disease or smoker's disease is an arterial disease. It is non-atherosclerotic inflammatory disorder involving occlusion of medium sized and small distal arteries. This eventually damages or destroys skin tissues and may lead to infection and gangrene. Other sign and symptoms include intermittent claudication, discolouration of the involved limb, decreased local temperature, rest pain, ulceration, absence or feeble distal pulses and recurrent superficial thrombophlebitis. In Buerger's disease conservative treatment in modern medicine is questionable. Modern management includes conservative with use of vasodilators, and low dose aspirin. Surgical management includes lumbar sympathectomy, omentoplasty, and if

gangrenous stage is there then amputation is the choice. These treatment are costly, not satisfying and associated with complications. But, with these features- a case of Buerger's disease was treated successfully by ayurvedic medicines and the dry gangrenous toes were dressed with til kalka lepa. After treatment the pain and discolouration of toes was resolved in one and half month.

## INTRODUCTION

Buerger's disease is most common among patients between 20 to 40 years of age. Males are predominantly more affected by it, but several cases of women have also been reported. In Buerger disease recurring progressive inflammation and thrombosis (clotting) of small and medium arteries and veins of the hands and feet occurs, leading to an insufficient supply of blood to the affected part. It causes pain in the affected areas, at rest and while walking, peripheral pulses are diminished or absent. There are color changes in the extremities, it may range from cyanotic blue to reddish blue. Hair growth is reduced. Ulcerations and gangrene in the extremities are common complications. The main cause of Buerger disease is strongly associated with use of tobacco products, primarily from smoking, but is also associated with smokeless tobacco. Tobacco produces vasospasm because of an inflammatory reaction of the vessel wall. This eventually leads to vasculitis and ischemic changes in distal parts of limbs. Low socio-economic status, recurrent trauma to the foot, poor hygiene is additional factors for the precipitation of the disease. In allopathic medicine, there is no specific treatment, if the condition gets worsened, surgery is the last option.

In Ayurveda no specific correlation can be made with the diseases mentioned in the literature. But, considering the features of the T.A.O it can be said that it is vitiation of doshas in blood vessels and thus strotodushti especially raktavah strotas is present. According to this concept the treatment is planned to remove the sanga i.e obliteration, siranam granthi i.e thrombus. These two things hold the pathology of the disease related to ayurveda. So, the treatment of the patient was planned according to the pathology of the disease.

**CASE STUDY-** Observational.

**TYPE OF STUDY-** Single Case Design.

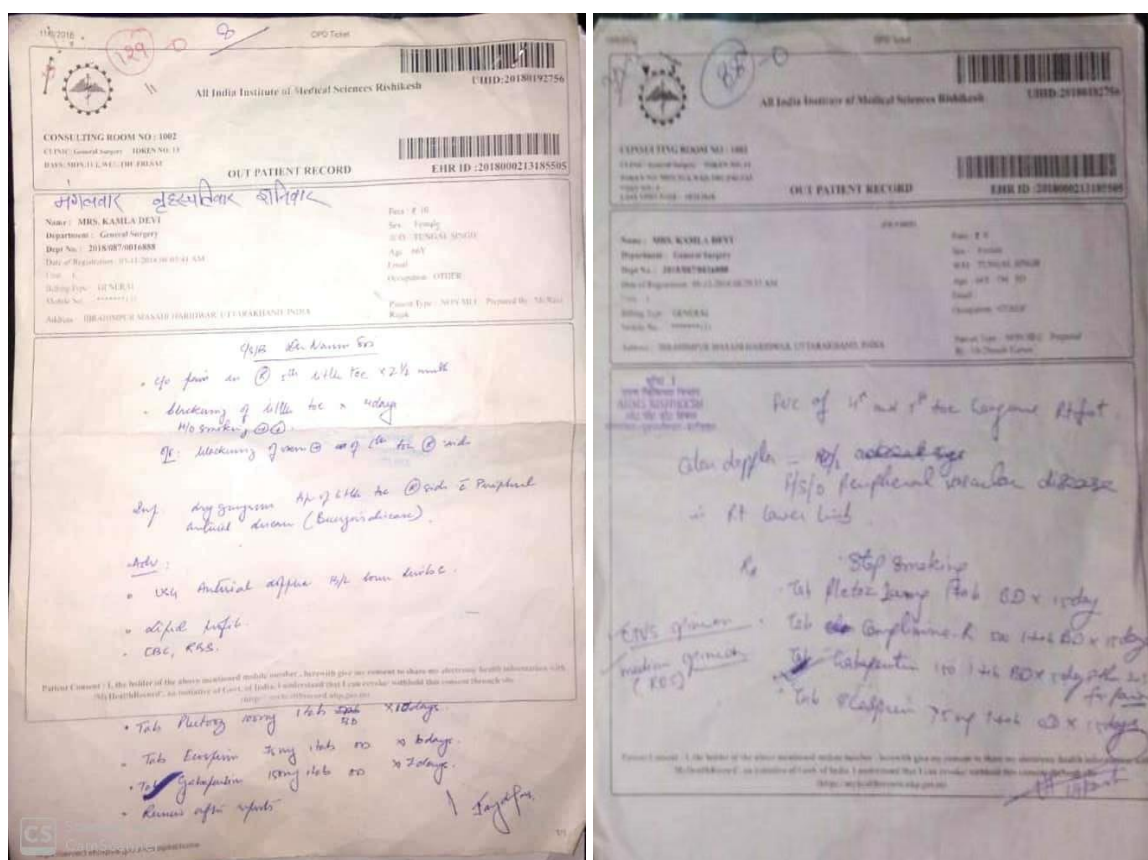
**Study centre** Rishikul Ayurvedic P.G College Campus Hospital, Haridwar, Uttarakhand Ayurved University, Uttarakhand.

A 60 Years old female patient with OPD NO 300/1206 and IPD NO 7/1 was admitted in the Shalya-tantra department of this hospital with chief complaints of-

Severe Pain – 6 months,

Discolouration in 4<sup>th</sup> and 5<sup>th</sup> toe of Right foot- 3 months , Difficulty in walking and cramp

Before six months, the patient was absolutely alright. Gradually she noticed pain started in 4<sup>th</sup> and 5<sup>th</sup> toe of right leg, it progressively increases day by day. After three months, she noticed discolouration of 4<sup>th</sup> and 5<sup>th</sup> toe of right leg with severe pain. She felt intense pain in the Right leg which did not allow her to do his daily work and she used to take 4 to 5 tablets of pain killer but she did not get any relief in pain. Discoloration of the toe was increasing gradually. Patient has difficulty in walking for more than 60-70 meter and used to develop cramp like pain in her leg during walking. Patient was a chronic smoker since last 20 years. She was also suffering from diabetes mellitus and Hypertension. She took Allopathic treatments for the disease from local doctors but she did not get any improvement, then she goes to AIIMS Rishikesh where she advised for amputation, but she refused. Finally she came to Rishikul Ayurvedic Hospital Haridwar for better management.



No history of any surgical illness

**History of drug allergy-** patient was not known allergic to any drug or substance.

**Personal history** Diet-mixed Appetite-good Sleep- disturbed Bowel- normal

**Micturition-** normal

**Occupation-** Housewife

**Addiction-** chronic smoking (10 -20 bidi per day since 20 years), Tobacco chewing Family history – Maternal history- no specific

**Paternal history-** no specific

### **General examinations**

G/C- fair Temperature – 98 F Pulse-80/ min

BP – 176/100 mm of hg Eyes- no icterus

Skin-no pallor

Tongue- no cyanosis, No coating

### **Systemic examination**

R S – Clear

CVS – S1 S2 normal No added sounds CNS – oriented

P/A – soft

L/E – discoloration over skin of 4<sup>th</sup> and 5<sup>th</sup> toe of right leg, Decreased local temperature

### **Peripheral pulsation**


<b>Peripheral arteries-</b>	<b>Left lower limb</b>	<b>Right lower limb</b>
Dorsalis pedis	Absent	Absent
Posterior tibial	present	Absent
Popliteal	Present	Absent
Femoral	Present	Present

**Investigations** Hb – 13.7 gm% WBC – 5300

RBC – 4,800 millions/mm<sup>3</sup> Bleeding time- 1:18 min Clotting time – 4.57min

Random Blood sugar level- 221mg/dl Urine routine- NAD, Microscopic – NAD HbsAg – non reactive

HIV– non reactive

**USG Doppler bilateral lower limbs: ARTERIAL**


**ALL INDIA INSTITUTE OF MEDICAL SCIENCES, RISHIKESH**

Name of the Patient:	KAMLA DEVI/66Y/F	Cr No.:	20180192756
Ref. Deptt.		Date:	16/11/2018

**USG DOPPLER BILATERAL LOWER LIMBS : ARTERIAL**

**RIGHT**

ARTERY	PSV(CM/SEC)	WAVEFORM
CFA	28	BIPPHASIC
PROXIMAL SFA	26	BIPPHASIC
DISTAL SFA	24	BIPPHASIC
POPLITEAL	22	BIPPHASIC
ATA	-	MONOPHASIC THUMBING
PTA	-	MONOPHASIC THUMBING
DPA	-	MONOPHASIC THUMBING


**LEFT**

ARTERY	PSV(CM/SEC)	WAVEFORM
CFA	63	TRIPHASIC
SFA	30	TRIPHASIC
DISTAL SFA	24	TRIPHASIC
POPLITEAL	31	TRIPHASIC
ATA	15	BIPHASIC
PTA	11	BIPHASIC
DPA	6	BIPHASIC

**Bilateral arterial system are showing myo intimal thickening with progressive luminal narrowing.**

**IMPRESSION: F/S/O**

- Peripheral vascular disease changes in right lower limb as described above.

 **Dr. Divya Pandey, SR**  
Deptt of Radio-diagnosis  
CamScanner

- Bilateral arterial system are showing myo intimal thickening with progressive luminal narrowing.
- Peripheral vascular disease changes in right lower limb.

**Diagnosis – TAO of right lower limb.**

**Ayurvedic Concept**

Buerger's disease can be correlated with srotodusthi of Raktavaha srotas, as there is thrombus in the arteries with inflammation. So the lakshanas like sangra and siranam granthi involving the raktavah srotas should be relieved. The Main principle behind the treatment is to remove the 'sang' (thrombus) and to subside the shotha, so that subsiding the inflammatory changes and the circulation of the affected limb gets improved.

**Management**

## 1. Oral medication-

- 1) Mahamanjishthadi kwath 50ml twice daily.
  - 2) Arjun twak churna 1 gm  
Sarpagandha churna 1gm  
Amalki churna 2gm  
Punarnava churna 3gm  
Madhuyashthi churna 2gm
- Twice daily
- 

3) Arogyavardhni vati- two tab. Three times a day.

4) Kaishor gugglu one tab. Three times a day.

**2. Daily dressing**

Both the toe (4<sup>th</sup> & 5<sup>th</sup>) which were suffering from dry gangrene was daily cleaned and dressed with til kalka lepa.

**RESULT****After Treatment**

Pain & swelling got subsided in 20 days.

Local temperature was started to raise slightly after 20 days. Claudication distance-was improved from 100m to 200 m in 20 days. Rest pain was totally disappeared in one and half month.

Skin colour started to improve from 20 days and returned to normal in one and half month.

**DISCUSSION**

50 ml of Mahamanjishthadi kwath was given twice a day. It has property of Rakta sodhan, thus It supports blood purification which contributes to healthy blood circulation and skin health. It helps in reducing the size of the thrombus, it improves the microcirculation which in helps to maintain the collateral circulation. It also has analgesic property, thus it reduces pain.

Mix of Arjun twak churna 1 gm, Sarpagandha churna 1gm, Amalki churna 2gm, Punarnava churna 3gm and Madhuyashthi churna 2gm was given twice daily.



Arjun is having Anti-thrombotic, Antioxidant, wound healing and anti-ischemic properties due to which, it helps in increasing the blood flow at the site of TAO, due to which ischemia get reduced and skin becomes normal.

Sarpagandha (*Rauwolfia Serpentina*) is having tikta rasa, ruksha guna, ushna virya, katu vipaka, and its roots is having Reserpine and it is mainly anti-hypertensive, sedative, antianxiety, anti-psychotic, and hypnotic. Due to these properties, it calms central nervous system thus it is helpful for reducing anxiety and is best for using in hypertension. In addition to these properties, it is also known for antimicrobial, and anti-inflammatory activities, thus it helps in healing of wound.

Amalki(*Embllica officinalis*) is having madhur, amla, katu, tikta, kasaya rasa. it has guru, ruksha, sheeta guna, sheeta virya, and madhur vipaka. Amalaki is abundant in vitamin C and a good source of minerals and amino-acids. Amalki has Gallic acid, gallotannin like compounds, and these compounds have antioxidant and free radical scavenging properties that reduces oxidative stress in pancreas and helps to normalize blood glucose level. It also reduces diabetic complication like neuropathy. In addition to this amalki is also having anti-inflammatory and anti-microbial properties, thus it helps in wound healing. It is also anti-hypertensive.

Punarnava is of madhura, tikta, kasaya rasa. It is of laghu, ruksha guna, Ushna virya and has madhur vipaka. It balances tridosha. Punarnava has anti-edemic and mild diuretic action, thus It reduces swelling. It has excellent anti-inflammatory action, thus it reduces inflammation in blood vessels. It acts as rejuvenating agent and stimulates the formation of blood and increases hemoglobin level in the blood, thus it helps to increase the level of blood at the site of TAO.

Mulethi is madhur in rasa, it is guru and snigdha, sheeta virya and its vipaka is madhura. It contains Glycyrrhizin, which reduces inflammation. It also has antioxidant and analgesic properties thus it helps to reduce pain. Due to these properties, it rejuvenate vessels.

Main contents of Arogyavardhini vati is kutki. Other contents are Shuddha guggulu, Chitrak, Shilajit, amalki, Bibhitaki, Haritaki, Shuddha parad and gandhak, loha, Abhrak and Tamra Bhasma. Primary action of this vati are anti-inflammatory, mild laxative, thus it reduces inflammation. Secondary actions are Anti-hypertensive and Hematogenic, due to which it

helps to reduce elevated blood-pressure and it helps in formation of RBCs.

Kaisore guggulu contents are Guduchi, Trifala, Trikatu, Shuddha guggulu, Vidanga, Nisoth, Danti Mool. Kaisore guggulu has active phyto-chemical constitution like Guggulipids, Polyphenols, Polysaccharides. It has antibiotic, Anti-inflammatory and anti-microbial properties, therefore it is good natural blood cleanser, useful as supportive dietary herbal supplement in many health conditions such as diabetes, skin diseases etc. thus it helps in healing TAO wound and it also helps in reduction of elevated blood sugar.

### Tila

Latin name- *Sesamum indicum* Rasa- Madhur, Kashaya, Tikta Virya- Ushna

Karma- Vata-hara, Twachya

Firstly, Tila seeds are converted into kalka form and then mixed with madhu. By this paste, dry gangrenous part was dressed daily.

Chemical constituent in tila are Glycolipids, Phospholipids, Sesamose, Sesamolol etc. It has Anti-inflammatory, Anti-oxidant, Anti-microbial, and wound healing property. It improves blood circulation to the skin and tissues, and it helps to remove dead skin cells and improve skin quality and texture.



**Before treatment**



**Before treatment**





After Treatment

After Treatment

## CONCLUSSION

Ayurvedic management for buerger disease is result oriented, also it is very cost effective and it also minimises the chances of surgical interventional procedures. This case study gives an idea about a line of treatment to be adopted.

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