



## Case Study

### BUERGER'S DISEASE –TREATMENT WITH AYURVEDA: CASE STUDY

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#### ABSTRACT

Smoking is injurious to health. But those who are addicted to smoking never take this statement seriously. Nicotine present in tobacco causes vasospasm and inflammatory endarteritis. It is a prothrombotic stage and subsequently causes vaso-occlusion. This usually affects lower limbs especially small and medium sized arteries. Disease progression is closely associated with heavy and continuous ingestion or inhalation of tobacco. Incidence of Burger's disease is more common in men. It is very rare in females. Conservative treatments prescribed for this disease in initial phase were vasodilators, pentoxifylline, low dose of aspirin, platelet aggregation inhibitor drugs. Surgical intervention involves chemical sympathectomy, lumbar sympathectomy and amputation of the gangrenous part. In Ayurveda Buerger's disease is not mentioned. But with the symptoms and the pathology correlation to three *Doshas* it is possible to treat the disease. Here is a case study of male patient aged 32 years came with complaints of non healing ulcer which was created after amputation of all toes including great toes of right foot 6 months back. He was a chronic chain smoker and was diagnosed Buerger's disease. He was given leech therapy once in 7 days along with oral Ayurvedic drugs and local application on wound.

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### INTRODUCTION

Leo burger after whose name Thrombo Angitis Obliterans was named Buerger's disease once said "Upon examination we see that one or both feet are markedly blanched, almost cadaveric in appearance, cold to touch, and that neither the dorsalis pedis nor posterior tibial artery pulsates-after months- Trophic disturbance make their appearance- even before gangrene, at the ulcerative stage, amputation may become imperative because of the intensity of the pain."<sup>[1]</sup> TAO or Buerger's disease is more prevalent in males especially smokers and tobacco users. It is very rare in females. It occurs mainly in middle age. This disease is usually affects lower limbs but can also effect upper limbs. Lower socioeconomic groups, poor hygiene, repeated minor injuries are aggravating factors. It is segmental progressive and occlusive inflammatory disease of small and medium sized vessels with thrombophlebitis.

### Pathophysiology

Etiology of burgers disease is still not very much clear. But for the initiation and progression of disease smoking is main factor. Carbon monoxide and nicotinic acid released in blood due to smoking leads to formation of carboxyhaemoglobin. This initiates vasospasm. Inflammation of walls of arteries induces panarteritis causing the formation of thrombus leading to occlusion of vessels. The part of the limb supplied by occluded vessels turn ischemic and leads to gangrene formation. Severity of symptoms depends on the degree of occlusion and whether it is acute or chronic. Slow and progressive occlusion leads to development of collateral circulation. Collateral circulation provides alternative route of blood supply to the ischemic part and reduces the symptoms till some critical occlusion or stenosis develops. Arterial lumen is blocked but not thickened like atherosclerosis.<sup>[2]</sup>

## Symptoms

Pain initially arises on walking and relieves on rest. With progression of disease pain continues even on rest, coldness of affected part, numbness and tingling sensation, postural colour changes followed by blackish discolouration of the part.<sup>[3]</sup>

## Signs

Intermittent claudication in foot and calf progressing to rest pain, ulceration and gangrene. Absence or feeble pulses from distal to proximal dorsalis pedis, posterior tibial, popliteal and femoral arteries.<sup>[4]</sup>

## Examination

**Inspection:** Marked pallor. Congestion and purple blue cyanosed discolouration is seen in case of dependant position. As soon as limb is elevated it turns pallor and shiny skin and brittle nails and loss of hairs on skin.<sup>[5]</sup>

**Palpation:** Absent or feeble posterior tibial and dorsalis pedis pulses in feet. In upper extremity the radial pulses may be absent and when it is bilateral indicates this disease.<sup>[6]</sup>

## Investigation

Arteriography and Colour Doppler.<sup>[7]</sup>

## Ayurvedic view

Buerger's disease is a *Raktaja vyadhi* where all the three *Doshas* are involved. Smoking increases the *Ushma* of the body vitiating *Pitta* and *Rakta*. This reduces the liquidity of *Rakta*. *Kapha dhatu* gets dried in the vessel and causes obstruction. *Vaat* gets obstructed and *Vimargaman* causes pain. The idea of treatment should be to remove the obstruction and restore the flowing tendency.

**Case study:** A male patient aged 34 years old working in a private company came to Shalya OPD Patanjali Ayurved Hospital, presenting with complaints of non healing ulcer right foot and severe pain in right leg below knee.

## History of present illness

Pt is a chronic smoker. He was apparently well before 1 year. Slowly he developed pain in right leg during exertion which was relieved by rest. With the progression of disease there was continuous pain and numbness and tingling sensation in the right foot. Later all the five digits one by one of the right foot began to turn black. He had visited a private allopathy hospital and was diagnosed Buerger's disease and was advised amputation of the great toes. He was started medicines and was advised to completely stop smoking but he did not. After amputation he developed a wound on dorsum of right foot which did not heal and the pain in lower limb increased in

severity. The patient has now come to *Shalya* OPD Patanjali Ayurved Hospital presenting with complaints of pain, burning sensation, non healing ulcer, and foul smelling discharge from right foot. He could not walk without any support and was dependent on others for daily chorus. He was spending sleepless night because of pain.

## On examination

**Color Doppler both lower limbs:** Right anterior tibial and dorsalis pedis arteries reveal significant luminal narrowing and reduced blood flow velocities with triphasic waveforms. Hypochoeic plaques seen in left proximal superficial femoral artery causes luminal narrowing marked dampened blood flow velocities and monophasic waveforms in left superficial femoral, popliteal, anterior tibial, posterior tibial and dorsalis pedis arteries. CT angiography for further evaluation.

**C.T Peripheral Angiography S/o long segmental bilateral popliteal artery thrombotic occlusion,** likely acute to early subacute with multiple collaterals in the bilateral leg leading to poor reformation of ATA, PTA, plantar and digital arteries.

## Treatment schedule

- 1) Oral medication *Arjun ksheerpak*
- 2) *Dashmool kwath* 50 ml bd,
- 3) *Triphala guggulu* 250mg + *Aarogyavardhini vati* 250mg + *Neemb ghan vati* 250mg bd and *Mahamanjishtadi kwath* 20ml bd
- 4) Leech application every 7 days
- 5) Dressing with *Jatyadi tail* after *Triphala kwath prakshalan*

## OBSERVATION

Patient was having relief symptomatically. After 2 sittings of leech therapy redness, swelling was reduced significantly. *Triphala kwath prakshalan* had significantly reduced the foul smell. Daily dressing with *Jatyadi tail* slowly removed the slough and the colour changed from pale yellow to pinkish. After 4 sittings of leech feeble pulsation was felt. Skin temperature and colour was also improved. Wound also developed healthy granulation tissue. Slowly wound began to contract in size.

## RESULT

Patient was completely healed in 4 months.

## DISCUSSION

*Acharya Charak* once said in his treatise that it is not possible to mention all the disease but on the basis of symptoms *Dosha* and *Dushya* can be identified and treated. Same way although Buerger's disease is not mentioned in Ayurved text

but on the basis of signs and symptoms and the pathology treatment for Buerger's disease was decided. Local and systemic treatment was given. *Arjun kshirapaak* is *hridaya*<sup>[8]</sup>. It improves circulation and is known to remove the plaques and other atherosclerotic changes. *Dashmool kwath*<sup>[9]</sup> reduces swelling and controls the *Vaat*. It henceforth helps to reduce the pain. *Triphala guggul*<sup>[10]</sup> and *Aarogyavardhini vati*<sup>[11]</sup> are *Tridosh shamak* and anti-inflammatory. *Triphala guggulu* reduces swelling, pain, foul smell and pus discharge. *Neemb ghan vati*<sup>[12]</sup> act as an antibiotic and fight against infection. *Neemb* has been advised by *Acharyas* in *Vran* especially *Dusht vran* to be used for both local and systemic use. *Aarogyavardhini vati* removes the toxins from the body which does not let the wound heal. It is also *Dipana* and *Pachaniya* which helps to improve digestion and proper formation of *Ras dhatu*. *Mahamanjishtaadi kwath*<sup>[13]</sup> purifies blood and improves circulation and reduces the smell. *Triphala kwath*<sup>[14]</sup> has astringent property. *Triphala kwath prakshalan* reduces the discharge from the wound along with smell. *Acharya Charaka* has used *Triphala kwath praksahalan* for purification of *Asadhya vrana*. Then application of *Jatyadi tail*<sup>[15]</sup> is mentioned to be used in *Dushit vran*. Application of this oil helps in *Shodhan* and *Ropan* of *Dusht* or non healing ulcer.

**Leech application:** Saliva of leech contains more than 100 bioactive substances which poses antiedematous, bacteriostatic and analgesic activity. It can resolve microcirculation disorders. Contents like hirudin it is anticoagulant and acts like blood thinner. Hyaluronidase facilitates penetration and diffusion of pharmacologically active substance into tissues and has antibiotic property. Eglins possess anti-inflammatory property. Carboxypeptidase increases blood flow. Thus it decrease blood viscosity and increases blood flow to the organ<sup>[16]</sup>. *Acharya Sushruta* has mentioned about use of *Jalukaavcharan* in *Raktaj* and *Pittaj vyadhi* for *Raktmokshan*<sup>[17]</sup>.

## CONCLUSION

Such type case study has opened a new way of treatment for Buerger's disease. Treatments prescribed in allopathy both medical and surgical are very costly, with many complications and failure rate is also high, where as treatment prescribed in Ayurved is based on the principal to have healthy state of whole body. The treatment given here has not only healed the wound but also improved the microcirculation. Further research is required to establish it completely as a standard treatment plan for Buerger's disease.



Day1

Day 110

After healing

## REFERENCES

1. SRB Manual of Surgery, 5<sup>th</sup> edition, Ch L Arterial Disease Page no 178.
2. SRB Manual of Surgery, Sriram Bhatt, 5<sup>th</sup> edition, Ch L Arterial Disease Page no 179.
3. Manipal Manual of Surgery, K. Rajgopal Shenoy and Anita Shenoy editor, 4<sup>th</sup> edition 2014, CBS Publisher and Distributar, Ch 7 Lower Limb Ischemia, page no. 77.
4. SRB Manual of Surgery, Sriram Bhatt, 5<sup>th</sup> edition, Ch L Arterial Disease Page no 179.
5. Manipal Manual of Surgery, K. Rajgopal Shenoy and Anita Shenoy editor, 4<sup>th</sup> edition 2014, CBS Publisher and Distributor, Ch 7 Lower Limb Ischemia, page no. 79.
6. Manipal Manual of Surgery, K. Rajgopal Shenoy and Anita Shenoy editor, 4<sup>th</sup> edition 2014, CBS Publisher and Distributor, Ch 7 Lower Limb Ischemia, page no. 79.
7. Bailey and Love Short Practice Of Surgery, Norman s. Williams, P. Ronan O' Connell, Andrew W McCasckew, 27 edition print 2018, Cpc Press, Ch 56 Arterial Disorder, page no 945.
8. Bhashajya Ratnavali, Kaviraj Gannath Sen, editor Prof Sidhi Nandan Mishra, 2016, Chaukhambha Subharti Prakashan, Ch Hridrogchikitsa prakaran Page no 3.
9. Bhashajya Ratnavali, Kaviraj Gannath Sen, editor Prof Sidhi Nandan Mishra, 2016, Chaukhambha Subharti Prakashan, Ch Vidradhirog chikitsa prakaran Page no 229.
10. Bhashajya Ratnavali, Kaviraj Gannath Sen, editor Prof Sidhi Nandan Mishra, 2016,

- Chaukhambha Subharti Prakashan, Ch Vranshotha Adhikar Page no 824.
11. Bhashajya Ratnavali, Kaviraj Gannath Sen, editor Prof Sidhi Nandan Mishra, 2016, Chaukhambha Subharti Prakashan, Ch Kushtaroga Adhikar Page no 871.
12. Bhashajya Ratnavali, Kaviraj Gannath Sen, editor Prof Sidhi Nandan Mishra, 2016, Chaukhambha Subharti Prakashan, Ch Vranshotha Adhikar Page no 824.
13. Bhaisajya Ratnavali, Kaviraj Shri Govind Das Sen, English commentary by Dr. G. Prabhakar Rao Volume II Ch 34 shloka 71 and 72 page no 296.
14. Charaka samhita Savimarsha hindi vidyotani tika by Dr kashinath Shastri and Dr Gorakhnath Chaturvedi Reprinted 2006, Chaukhambha Bharti Academy Ch 25 Chikitsa Stahana shloka 84 page no 710.
15. Bhashajya Ratnavali, Kaviraj Gannath Sen, editor Prof Sidhi Nandan Mishra, 2016, Chaukhambha Subharti Prakashan, Ch Vranshotha Adhikar Page no 825.
16. Swaid Abdullah, latief M. Dar, Adil Rashid, Anita Tiwari, review article. Hirudinotherapy / leech therapy: applications and Indications in Surgery. Arch Clin Exp Surg. Year 2012, Volume: 1, Issue:3, 172-180.
17. Susruta Samhita of Acharya Susruta edited with Ayurveda Tatva Sandipika by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthana Varansi. Sutra Sthana Ch 13 page no 43.

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