



## ***Ayurvedic management of Thrombo Angiitis Obliterans (T. A. O.) (Buerger's disease) – A case study***

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### **Abstract:**

T.A.O. (*Thrombo Angiitis Obliterans*) also called as *buerger's* disease or smoker's disease. It is due to in response to the inflammation of all three layer of the artery. It is non - *atherosclerotic* inflammatory disorder involving medium sized and distal arteries. Mainly occurs in young males between ages of 20-40 years and is common in lower limbs . The common cause of the disease is smoking or tobacco chewing. Tobacco secretes nicotine which is responsible for *vasospas*, In early stage it is unilateral but later involves both the limbs. Causes include hypersensitivity to cigarette, recurrent minor feet injuries, poor hygiene and altered autonomic functions. Sign and symptoms include intermittent *claudication*, discoloration of the involved limb, decreased local temperature, rest pain, ulceration and, *brided* nail, loss of subcutaneous fat ,gangrene, absence/feeble distal pulses and recurrent superficial thrombophlebitis<sup>1</sup>. Modern management of this disease includes conservative with use of vasodilators, *pentoxifylline*, dose aspirin or platelet aggregation inhibitor drug. Surgical management includes chemical *sympathectomy* lumbar *sympathectomy*, and if gangrenous stage is there then amputation is the choice. These means of treatment are costly, not satisfying and associated with complications. In *Ayurveda* , the disease is not mentioned as it is but the features can be correlated with *Gambheera Vatarakta*.<sup>2</sup>Hence, because of *Rakta Dusti* ,*Manjisthadi Kshara Basti*<sup>3</sup> was planned as Ekal Chikitsa. The hypothesis is that, it helps to improve the collateral formation and increased the micro circulation. All these means gave satisfactory results and the patient was able to do his daily activities without any trouble.

**Keyword:** T.A.O., *Thrombo Angiitis Obliterans*, *gambheera vatarakta*, *manjisthadi Kshara basti*

## Introduction:

In this case the cause of the disease was caused by excessive smoking, the smoking index was  $>300$ , which is at the higher risk to get the disease. As smoke contains carbon monoxide particles and nicotinic acid they combine with the blood and form *carboxyhaemoglobin*. Initially it causes vasospasm and hyperplasia of the *intima* later thrombosis in the vessels and thus obliteration to the blood flow<sup>4</sup>. Clinical features include *claudication*, *ischaemic* changes of the limb, discoloration, ulceration and gangrene. The use of vasodilators, and lumbar *sympathectomy*, aspirin etc may hold the progression of the disease for a while but is not the permanent solution. Surgical procedures are not having that promising results, if gangrene sets then amputation is the choice but loss of limb is not the choice for the patient.

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 blood in the vessels and thus *strotodushti* especial *Raktavah Strotas* is present. According to this concept the treatment is planned to remove the sanga i.e obliteration. These two things hold the pathology of the disease related to ayurveda. Patient was treated with *ekal chikitsa* that is *Manjisthadi Ksharabasti* in form of *yoga basti*. The results of this regime gave significantly relief to the patient without any complications and was cost effective.

## Case study

A 48 Years Male Patient

Occupation- Porter

OPD No-143326

IPD No –031020

DOA- 11/9/2017 DOD-  
15/10/2017

Address – *Hassan*

Chief complaints –

- Pain in calf muscle with burning – since 4 month
- Discoloration of skin – since 4 month
- Intermittent *claudication* – since 4 month
- Non healing ulcer over right great toe – since 4 months
- Loss of subcutaneous fat- since 4 months
- *Braddened* nails- 6 month

History of the patient-The patient was asymptomatic before 4 month then he gradually developed burning sensation on right calf muscle which progressed and turned into pain of the left leg, which didn't allow him to do his daily work, intermittent *claudication* lead to painful walking. There was discoloration of the limb and an ulcer developed over the right greater toe which did not healed. patient went to modern hospital for the management ,there right lumbar *sympathectomy* was done, but even after lumbar *sympathectomy*<sup>5</sup> ulcer was not healed ,and pain was not subsided . so patient came to surgical OPD of *sri dhamasthala manjunatheswara ayurveda hospital*.

Past history- No history of any major illness



No history of DM/HTN/Asthma

Surgical History-right Lumbar  
*Sympathectomy* 4 month before

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

- Personal history-Diet-mixed
- Appetite-good
- Bowel- normal
- *Micturition*- normal
- Sleep- disturbed due to pain
- Occupation- driver
- Addiction-chronic smoking  
(10 *beedis* per day from 2 years)
- Tobacco chewing- Yes
- Family history – no specific
- Maternal history- no specific
- Paternal history- no specific
- Self history – no specific
- General examinations-G/C- good
- Temperature – 98 F
- Pulse-80/ min
- BP – 110/80 mm of Hg
- Pallor-negative
- Icterus- negative
- Clubbing- negative
- Cyanosis- negative
- *Lymphadenopathy*- negative
- Edema- negative
- Systemic examination
- CVS – S1 S2 normal, No added sounds
- CNS – oriented
- R S – NBVS
- P/A – soft
- Sign
- Berger angle-45 degree
- Berger test-positive
- *Claudication* distance=50 meters

- L/E –
- Discoloration over skin of right leg=positive
- Hair loss=positive
- Decreased local temperature=positive

Peripheral pulsation

Peripheral arteries	Right	Left
<i>Dorsalis pedis</i>	-	+++
<i>Posterior tibial artery</i>	-	+++
<i>Popliteal artery</i>	-	++++
<i>Femoral artery</i>	++++	++++



Investigations-Hb – 13 gm%

WBC – 4,300

RBC – 4,000 millions/mm<sup>3</sup>

Bleeding time- 1min 5 sec

Clotting time – 5min 0 sec

Blood sugar level F- 95 mg/dl

PPBS- 110 mg/dl

Urine routine- NAD

Microscopic – NAD

*HbsAg* – non reactive

HIV– non reactive

USG abd.- pelvis – Within normal limits

Arterial Doppler left lower limb - normal

*Right-occlusion on popliteal artery*

*Diagnosis – TAO of right lower limb.*

### **Ayurvedic concept:**

T. A. O. is the inflammation of the wall of artery which form thrombus . This can be related to *strotodushti* so the *lakshanas*, *sangaand vata rakta* involving the *raktavah strotas* so *majnisthadi kshara basti* has been adopted that *Kshara* having *lekhan* property and *manjistha* having *rakta suddhi* property<sup>6</sup>. Main principle behind the treatment is removal of the thrombus, subsiding the inflammatory changes and improving the collateral circulation.

### **Management-**

#### 1. Medicines

- *manjisthadi Kshara basti*
- *jatyadi taila* dressing bd
- ingredient of *manjisthadi Kshara basti*
- *saindhav*=10 gm
- *madhu*=50 gm
- *manjistha kalka*=30 gm
- *pancha tikta grita*=80 gm
- *manjisthadi kashaya*=250 ml
- *gomutra*=100 ml

#### 2. Daily dressing:

The chronic ulcer washed with *panchavalkal qwata* was daily dressed with *jatyadi taila* BD

#### 3. Exercise-

*Buerger's* exercise was explained and it was strictly performed by the patient 4 to 5 times a day and 10 minutes each.

#### 4. burger position

The bed of the patient was elevated 6 inches from head side

### **Results:**

- Pain- subsided in 1stweek
- *Claudication* distance- was improved –from 50m to 100m in 8 days
- Discoloration- skin colour started to improve from 15 days
- Mid night pain-patient was having good sleep because of pain reduction
- Ulcer – the size of the ulcer has reduced.

### **Discussions:**

*Manjistha* is the drug having property of *rakta shuddhi* as well having anti-inflammatory property. *Gomutra* having *lekhana* property which helps in reducing the size of the thrombus. It is also having anti-inflammatory activity and thus helps in the pain management. Secondly it improves the microcirculation which in helps to maintain the collateral circulation. This helps in increase of the local temperature and hair growth over the limb. Improved collateral chain improved the discolouration of the involved limb, the *ischaemic* changes didn't progress further. Though there was no obvious visible distal pulsation present but the sign and symptoms of *ischaemia* subsided due to increased micro circulation. This helped for improving intermittent *claudication* and thus the *claudication* distance has improved, rest pain was relieved due to improvement in the ischemia of the nerves.

### **Conclusion:**

*Ayurvedic* management for T. A. O. is result oriented, also is cost effective and it



minimizes the chances of surgical interventional procedures.

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