

A CASE STUDY ON THE MANAGEMENT OF ATHEROSCLEROSIS WITH GANGRENE BY AYURVEDIC TREATMENT

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ABSTRACT

Introduction: A 56 years old male patient came in outpatient (OPD) on 22/12/22 with clinical features, Severe pain in left leg, swelling, black discoloration of foot below ankle joint, gangrenous ulcer on left foot with amputated 5th toe, offensive smell, since 4 months. No h/o DM/HTN/IHD. H/O Smoking for more than 20 years was significant. h/o amputation of 5th toe of left foot. Before coming to our opd patient visited hospital of modern medicine, received treatment and amputated 5th toe of left foot. After clinical examination (femoral, popliteal, and dorsalis pedis not palpable) and previous reports (bilateral lower limb angiogram) diagnosis confirmed as Atherosclerosis and gangrene (most probable cause is heavy smoking for long time) Patient

hospitalized and in IPD and started with Ayurvedic intervention. Hypothesis(H1): Is ayurvedic treatment regimen effective in management of atherosclerosis and gangrene Null hypothesis: Ayurvedic treatment regimen is not effective in management of Atherosclerosis and gangrene Objectives: To study the effectiveness of ayurvedic treatment regimen to reduce 1.Pain 2.swelling 3.discharge 4.progression of disease. **Methodology:** Patient was admitted in IPD Registratin no.214743 and started with ayurvedic treatment Raktpachak vati 500mg thrice daily Mahamanjishthadi ghan 500mg thrice daily Aarogyavardhini vati 500mg thrice daily Sanshmani vati 500mg thrice daily Punarnavadi gugulu 500mg thrice daily Yogbasti kram followed by Panchtikt ghrut matra basti 30ml daily Daily dressing with shodhan tail and ropan tail. **Results:** After receiving treatment promising results seen in patient. After yog basti kram swelling of the leg was reduced markedly (after 8 days) Redness and discharge of wound was reduced with no progression of gangrene General condition of

patient improved. **Conclusion:** Ayurvedic treatment regimen consisting Raktapachak vati, aarogyavardhini vati, mahamanjishthadi ghan, sanshamani vati punarnavadi gugulu, yog basti kram, panchtikta ghrut matra basti and dressing with shodhan ropan tail, conclusively act as Raktshodhan Aampachan vran shodhan vran ropan.

KEYWORDS: Ayurvedic Raktapachak vati, aarogyavardhini vati, mahamanjishthadi ghan, sanshamani vati punarnavadi gugulu, yog basti kram, panchtikta ghrut matra basti shodhan ropan tail, Raktshodhan Aampachan vran shodhan vran ropan.

INTRODUCTION

Gangrene is a general term that can be used to describe a number of conditions that involve death and subsequent decay of the tissue in one regional portion of the body.^[1] A complication of necrosis, gangrene can arise because of critically insufficient blood supply.^[2]

Gangrene occurs when a body part loses its blood supply. The affected tissue may be the skin, muscles, or internal organs. Blood provides oxygen and nutrients to feed the tissue cells and immune system components, such as antibodies, to ward off infections. Without a substantially functioning blood supply, the cells struggle to survive and ultimately die.^[2] This necrosis or cell death, can result when a portion of the body's tissues becomes infected, injured or constricted, interrupting the blood supply. In addition, tissue in a particular region of the body may have a decrease in the amount of blood supply due to a number of diseases or conditions, such as arteriosclerosis, diabetes, smoking or wound infections including those related to surgery.^[2] Any of these afflictions can significantly increase a person's likelihood of contracting gangrene.

Another indicator of susceptibility is a suppressed immune system. Patients with HIV or who are undergoing chemotherapy are at a far greater risk of infection due to the weakened state of their immune system. Severe burns or frostbite.^[1] can also cause gangrene in body tissues due to the necrosis that results from such injuries or conditions.

There are several types of gangrene, but the three most common variations are wet, dry and gas gangrene. Less common variations include internal and Fournier's gangrene. Gangrene can involve any part of the body, but the most common sites include the toes, fingers, feet and hands.^[3] Dry gangrene is a condition that involves tissue death and turns it dry, dark and mummified due to arterial occlusion. It occurs gradually, progresses slowly and affects the

lower extremities of the body (toes and feet) due to insufficient blood supply to the tissues. Dry gangrene is very common in individuals suffering from arteriosclerosis, high cholesterol, diabetes and smoking.^[4] In dry gangrene, due to necrosis, the tissue becomes shrunken and blackened and gets detached. In this condition, autoamputation is usually practiced due to occurrence of clear lines of demarcation. If dry gangrene is left untreated or treatment is delayed, it may progress to cause infections and complicate the condition. Following autoamputation practice also increases the painful phase and decreases the quality of life.^[5] Dry gangrene is usually less severe than wet gangrene and may result in auto-amputation (i.e., spontaneous detachment from the body and elimination of a gangrenous part), whereas wet gangrene may lead to cellulitis, loss of the extremity, septicemia and death.^[6]

In Ayurveda, gangrene can be considered as Kotha under Dushta Vrana due to Margavarana and Dhatu Kshaya. Margavarana (encapsulation) and DhatuKshaya (depletion of Dhatu) are the two major causative comorbidities of Vata Vyadhi. VataVyadhi may be categorized as Kevala Vataja, Samsrishta Doshaja and Avarana according to the effect of Nidana or due to the comorbidities of Margavarana and DhatuKshaya. The component terms Marga and Avarana together form Margavarana. The word Marga in general refers to any channels within the body, but, contextually, it refers to the vessels carrying the nutrients and Avaranameans Avarodha and is translated as obstruction. Pathological probability of gangrene may be accumulation of morbid Kapha and Pitta Dosha within the channels that the momentum of the Vata Doshacirculation in the channels or impairment of momentum.^[7] The influence of Margavarana is not limited proximal to the obstruction but distal to the obstruction, the circulation of the nutrients is affected and hence the body part distal to the obstruction is deprived of nutrition and hence suffers from pathology of Dhatu Kshaya.^[8]

CASE REPORT

A 56 years old male patient came in outpatient (OPD) on 22/12/22 with clinical features, Severe pain in left leg, swelling, black discolouration of foot below ankle joint, gangrenous ulcer on left foot with amputated 5th toe, offensive smell, since 4 months. No h/o DM/HTN/IHD. H/O Smoking for more than 20 years was significant. h/o amputation of 5th toe of left foot. Before coming to our opd patient visited hospital of modern medicine, received treatment and amputated 5th toe of left foot. After clinical examination (femoral, popliteal, and dorsalis pedis not palpable) and previous reports (bilateral lower limb angiogram) diagnosis confirmed as Atherosclerosis with gangrene left foot (most probable

cause is heavy smoking for long time) Patient hospitalized and in IPD and started with Ayurvedic intervention.

Previous report of bilateral lower limb angiogram shows: Complete thrombosis in left EIA,CFA,DFA, SFA and popliteal artery with multiple collateral as described.

Atheromatous changes in abdominal aorta and bilateral CIA.

(There is complete luminal filling defect noted in the left external iliac common iliac, common femoral, superficial femoral, deep femoral, popliteal arteries and tibio-peroneal trunk with reluctant complete non opacification,

The left anterior posterior tibial and peroneal and dorsalis pedis artery are reformed via collaterals)

The patient diagnosed as above gangrene of left foot due to atherosclerosis, patient is company worker and was not having history of any injury and he is non diabetic only the chronic history of smoking for @22 years (20 cigarettes daily). He opted alternative option for same problem without surgical intervention. After confirmation of Kotha, ayurvedik treatment started.

METHODOLOGY

Patient was admitted in IPD Registratin no.214743 and started with ayurvedic treatment Raktpachak vati 500mg thrice daily, Mahamanjishthadi ghan 500mg thrice daily, Aarogyavardhini vati 500mg thrice daily, Sanshmani vati 500mg thrice daily, Punarnavadi gugulu 500mg thrice daily Yogbasti kram followed by Panchtikt ghrut matra basti 30ml daily Daily, dressing with shodhan tail and ropan tail.

RESULTS

After receiving treatment promising results seen in patient. After yog basti kram swelling of the leg was reduced markedly(after 8 days) Redness and discharge of wound was reduced with no progression of gangrene General condition of patient improved. Particularly the pain is reduced which was Main complaint of patient who could not sleep for weeks.

The drugs used for treatment having properties of antiinflammatory analgesic, antibacterial, blood purification, antioxidant effect.

DISCUSSION

In the modern era, treatment of gangrene infections includes the removal of necrotic tissue in an attempt to allow healing of the surrounding living tissue. It is also an important step toward the prevention of further infection. The treatment options of the various types of gangrene, however, differ due to different types of conditions.

In Ayurveda, gangrene can be considered as Kotha under Dushta Vrana due to Margavarana (obstruction) Dhatu Kshaya. Margavarana is caused by imbalanced Tridosha, specially Pitta.

Dushti of doshas is in vatsthana, kati, sakthi, jangha, pad planned yogbasti for margavarana followed by panchtikta matra basti which having anti-inflammatory action works on tridosha.

Ayurvedic treatment regimen consisting Raktapachak vati, aarogyavardhini vati, mahamanjishthadi ghan, sanshamani vati punarnavadi gugulu, yog basti kram, panchtikta ghrut matra basti and dressing with shodhan ropan tail, conclusively act as Raktshodhan Aampachan vran shodhan vran ropan.

CONCLUSION

Ayurvedic treatment regimen consisting Raktapachak vati, aarogyavardhini vati, mahamanjishthadi ghan, sanshamani vati punarnavadi gugulu yog basti kram, panchtikta ghrut matra basti and dressing with shodhan ropan tail, conclusively act as Raktshodhan Aampachan vran shodhan vran ropan.

The above results suggests ayurvedic intervention can be used in management of kotha (gangrene). Can get more results in such patients. The findings need to confirmed and validated with more of number of patients.

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