

Acupuncture as a Modality in Buerger's Disease

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Abstract

A 32 yrs male patient presented with history of claudication pain and ulcers on left great and 2nd toes. He was a smoker. He was diagnosed as having Buerger's disease. The patient was treated with acupuncture therapy, with remarkable subjective and objective improvement. It is felt that acupuncture could be tried as a therapy in Buerger's disease.

Key Word: Acupuncture, Buerger's Disease

Introduction

Buerger's disease is an inflammatory occlusive vascular disease of the distal vessels of extremities with late involvement of cerebral, visceral and coronary vessels. Male smokers usually under 40 yrs of age are usually affected.¹ The condition was first described by Winiwater in 1879 and then by Leo Burger in 1908.²

Pathologically, affected vessels show infiltration of polymorphonuclear leucocyte followed by thrombus formation inside the vessel. Later on, polymorphs are replaced by mononuclear cells, fibroblasts and giant cells. Finally, organization of thrombus, perivascular fibrosis and recanalisation occur.

Clinically, patient shows features like Raynaud's phenomenon, claudication of the affected extremity and migratory superficial thrombophlebitis. Later on, dry and slowly progressive gangrene, precipitated by minor trauma, of the distal affected extremity sets in.³

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Bibliography

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On physical examination, proximal arterial pulsation are normal with reduced or absent distal pulses.

Arteriography shows segmental affection of the distal vessels associated with collateral vascularisation. Colour doppler USG is a noninvasive diagnostic procedure.⁴ Excision biopsy and pathological examination, though confirmatory, are rarely performed in an area with compromised vascularity.

There is no specific treatment. Tobacco smoking is universally forbidden in such patients. Treatment like Buerger's exercise, Buerger's position, reflex stimulation by heating the healthy side, anti-inflammatory drugs, steroids and anticoagulant have no permanent beneficial effect. In early vasospastic stage, sympathectomy (Lumber or cervico-dorsal) has some role. Free omental graft to the affected extremity shows some promising result.^{2, 4}

The present study was conducted to explore possibility of using an alternate therapy in a disease which has no definite relief in conventional modern medicine.

Case Details

A 32 years old male Hindu farmer presented to the department of Physical Medicine and Rehabilitation, Burdwan Medical College, with the history of claudication pain in the distal left lower limb and itching of left 1st and 2nd toes for 4 months. He also had pain and burning sensation, more intense at nights, of left 1st and 2nd toes for 2 weeks. He also noticed appearance of pus point at the tip of affected toes. He used to smoke about 10 bidis (indigenously made tobacco rolled in leaves) daily since 16 yrs of age. He had no other addiction. There was no history of diabetes or hypertension. There was no family history of Buerger's disease.

On clinical examination, distal pulses (anterior tibial, posterior tibial and dorsalis pedis) of the left lower extremity were absent. He had ulcers on the tip of the left 1st and 2nd toes with some discharge.

He was clinically diagnosed as Buerger's disease. Routine examinations like routine blood, blood sugar and urine were done and showed no abnormality. Colour Doppler examination was done and confirmed Buerger's disease.

The patient was offered Acupuncture treatment as a modality after taking his consent.

Proper aseptic measures were followed. Treatment was given in selected acupoints as per anatomical acupuncture.⁵ Acupoints namely: UB 40, UB 57, UB60, GB34 and Liv2 on the left side were selected. Treatment was given on alternate days for 6 weeks and then again for 4 weeks on once weekly basis with an interval of 5 days between them. Electropuncture⁵ for 30 minutes was given during each treatment session.

After completion of treatment, the patient perceived warm sensation and noticed a reddish colour change of the sole of the affected foot after walking for some distance. Temperature of the distal affected limb remained cold even after completion of treatment.

Patient was evaluated for subjective and objective changes initially before starting the treatment, at the completion of alternate day therapy and finally at end of therapy. Colour Doppler ultrasonography was repeated after completion of the therapy and showed no change. VAS (0-10cm.) was used for measuring intensity of subjective pain. Walking distance was used for measuring claudication distance. Photographs were taken to follow changes in condition of digital ulcerations.

Subjective pain evaluated on the VAS scale at the beginning of therapy was 10, at the end of six weeks of therapy it was 6 and at the completion of therapy at the end of 10 months it was zero.

Claudication distances at the beginning of therapy was 50 meters, and at 6 and 10 weeks it was 0.75 Km and 1.5 Km respectively. There was no improvement of peripheral pulsations even after completion of treatment. There was remarkable improvement of the condition of ulcers of left great and 2nd toes at the end of the 10 weeks therapy.

Discussion

Modern medicine has no curative definitive treatment. Acupuncture is explored as a treatment modality in Buerger's disease. Acupuncture is a component of Traditional Chinese Medicine (TCM).⁶ It has some scientific basis.⁷ It is extensively studied in LBP.^{8,9}

The acupuncture treatment can be done by any qualified doctor having training in it. It can be done even in peripheral rural centers, by maintaining aseptic precautions. The total cost of therapy is low as only a set of needles are needed for each patient.⁹

There was remarkable subjective and objective improvement in the treated patient. But there was no perceptible change in peripheral pulsation, temperature of the affected peripheral extremity or in Colour Doppler studies. The improvement in the patient may be probably due to improvement of capillary circulation of the affected



Fig 1. Ulcer at the beginning of treatment (top) and at the end of the treatment (bottom)

extremity. Patient's perception of warm sensation and colour change of the sole of the affected foot after walking for some distance also support this.

Acupuncture can be used in Buerger's disease which, at present, has no curative treatment in modern medicine. Acupuncture is simple, cost-effective, accessible to poor rural people. It has some scientific basis and can be administered by trained qualified doctors. Though it cannot be said with certainty that it was acupuncture alone that caused improvement in the condition of the patient presented here or it was the natural course of illness, more extensive studies are needed before coming to a definitive conclusion but is worth consideration to use this modality as one of the treatment modalities.

References

1. Creager MA, Loscalzo J. Vascular Disease of the Extremities. In: Fauci, Braunwald et.al., Eds. Harrison's Principles of Internal Medicine: Mcgraw Hill Medical; 2008: 1568-75
2. Das S. Raynaud's Syndrome, Buerger's Disease, Thoracic Outlet Syndrome and Cervical Rib. In: Das S, Ed. A Textbook of Surgical Short Cases: Dr. S. Das. 13, Old Mayors' Court. Calcutta; 1997: 209-26.
3. Nan AK. Arterial Impairment and Gangrene. In: Nan AK, ed. Undergraduate Surgery: Nirmala Publishing House. Kolkata; 1978: 44-56.

4. Das S. Examination of Peripheral Vascular Disease and Gangrene. In: Das S, ed. A Manual on Clinical Surgery: Dr. S. Das. 13, Old Mayors' Court. Calcutta; 2004: 59-72
5. Wong JY, Rapson LM. Acupuncture in the Management of Pain of Musculoskeletal and Neurological Origin. In: Kraft GH, Schulman RA, Cotter AC, Harmon RL, eds. Physical Medicine and Rehabilitation Clinics of North America. W.B. Saunders Company; August 1999: 531-45.
6. Xinnong C. Preface. In: Xinnong C, ed. Chinese Acupuncture and Moxibustion: Foreign Language Press, Beijing; 1987: XV
7. Walsh NE, Domitru D, Schoenfeld LS, Ramamurthy S. Treatment of patient with chronic pain. In: Delisa JA, Gan BM, eds. Rehabilitation Medicine- Principles and Practice. Lippincott- Raven; 1998: 1385-421.
8. Jayasuriya A. Locomotor Disorders; Diseases of Soft tissue, Muscle, Bones and Joints . In: Jayasuriya A, ed. Clinical Acupuncture: Jain Publishers Pvt. Ltd. New Delhi; 1998: 520-34.
9. Ghatak RK, Das TK. Acupuncture as a Modality in Low Back Pain. IJPMR. 2008 April; 19 (1): 21-3.

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