



Buerger's Disease: Clinical Diagnosis and Treatment Methods

Kane Daniel*

Department of Advanced Sciences, University of Toronto, Toronto, Canada

DESCRIPTION

Buerger's disease (thromboangiitis obliterans) affects blood vessels throughout the body, most notably in the arms and legs. Pain, tissue damage and even gangrene (the death or decay of body tissues) can result. Blood clots can form, causing obstructions inside the blood vessels [1]. Legs are more commonly affected than arms. The first symptom in most cases is severe pain in the lower arms and legs while resting. Affected individuals may also experience cramping in their legs when walking, which may result in limping in rare cases. Furthermore, affected people may develop sores (ulcers) on their extremities, numbness and tingling, a lack of normal blood flow to their fingers and toes when exposed to cold temperatures Raynaud's phenomenon and inflammation and clotting of specific veins (thrombophlebitis) [2]. In severe cases, individuals with Buerger's disease may experience tissue death (gangrene) of affected limbs. The exact cause of Buerger's disease is unknown however the majority of those affected are heavy smokers.

DIAGNOSIS

Buerger's disease can be diagnosed based on the identification of specific physical features and symptoms. In order to diagnose Buerger's disease, angiography or noninvasive techniques may be used [3]. During an angiography, a specialized dye is injected into the blood vessels to make them visible on x-rays.

TREATMENTS AND THERAPIES

Surgery

Buerger's disease is treated symptomatically and supportively. When affected individuals stop smoking, their symptoms usually improve. Individuals who stop smoking may experience complete remission of the disorder in some cases. If a patient does not quit smoking, treatment options for Buerger's disease should avoid unnecessary or premature surgery. Conservative treatment may include anticoagulants (drugs that prevent blood clotting), vasodilators (drugs that increase the diameter of blood

vessels), antiinflammatories (drugs that prevent inflammation), antibiotics or pain relievers.

Revascularization therapy

Revascularization is a type of experimental surgery that is being studied as a potential treatment for Buerger's disease [4]. This vein and artery surgery may improve blood circulation when combined with drug therapy (urokinase, PGE1, and heparin), but more research is needed to determine its safety and long-term effectiveness for people with Buerger's disease.

Clinical trials

Clinical trials have been conducted to evaluate the efficacy of iloprost, a prostacyclin analogue and omental transfer, a surgical procedure, in the treatment of Buerger's disease. Iloprost helped relieve pain and heal ulcers. Omental transfer increased blood flow to the affected areas, reducing pain and skin abnormalities.

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and narcotic analgesia can be used to relieve pain caused by ischemia, and antibiotics can be used to treat mild distal extremity ulcers [5]. Hyperbaric oxygen therapy is a widely used adjunctive treatment option for patients with diabetic wounds, refractory osteomyelitis, limb ischemia, or necrotizing infections of the soft tissues. Its use in Buerger disease without revascularization options is still experimental due to the scarcity of available data.

CONCLUSION

Blood flow into the arms and legs decreases as Buerger's disease worsens. This is because blockages make it difficult for blood to reach the tips of fingers and toes. Tissues that do not receive blood do not receive the oxygen and nutrients that they require to survive.

This can result in the death of the skin and tissue on the tips of fingers and toes (gangrene). Gangrene symptoms include black or blue skin, loss of feeling in the affected finger or toe, and a foul odour emanating from the affected area. Gangrene is a severe

Correspondence to: Kane Daniel, Department of Advanced Sciences, University of Toronto, Toronto, Canada, E-mail: kane.daniel@toronto.edu.ca

Received: 01-Sep-2022, Manuscript No. JCRB-22-18887; **Editor assigned:** 05-Sep-2022, Pre QC No. JCRB-22-18887 (PQ); **Reviewed:** 19-Sep-2022, QC No JCRB-22-18887; **Revised:** 26-Sep-2022, Manuscript No. JCRB-22-18887 (R); **Published:** 03-Oct-2022, DOI: 10.35248/2155-9627.22.13.442.

Citation: Daniel K (2022) Buerger's Disease: Clinical Diagnosis and Treatment Methods. J Clin Res Bioeth. 13:442.

Copyright: © 2022 Daniel K. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

condition that typically necessitates the amputation of the affected finger or toe.

REFERENCES

1. Dargon PT, Landry GJ. Buerger's disease. *Ann Vasc Surg.* 2012;26(6):871-880.
2. Wigley FM. Raynaud's phenomenon. *N Engl J Med.* 2002;347(13): 1001-1008.
3. Dumoulin CL, Hart Jr HR. Magnetic resonance angiography. *Radiology.* 1986;161(3):717-720.
4. Khatri P, Wechsler LR, Broderick JP. Intracranial hemorrhage associated with revascularization therapies. *Stroke.* 2007;38(2):440.
5. Vane JR, Botting RM. Mechanism of action of nonsteroidal anti-inflammatory drugs. *Am J Med.* 1998;104(3S1):2S-8S.