

Thromboangiitis Obliterans or Buerger's Disease : It's A Life Threting Disease

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Abstract

Buerger's disease is a Nonatherosclerotic, segmental, recurrent inflammatory vasoocclusive disorder of the small & medium sized arteries, veins & nerves of the upper & lower extremities. Smoking or tobacco plays a central role in the initiation & progression of the disease. Initial symptom is pain typically begins in the extremities but may radiate to other part of the body. There is no laboratory or diagnosis test specific to Buerger disease. It is diagnosed on the basis on age of onset, history of tobacco use & clinical symptoms. There is a complete cessation of tobacco use in any form including second hand smoke also is only the prevention of Buerger's disease.

Keywords: Thromboangiitis Obliterans Buerger's Disease; Peripheral arterial disease

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Introduction

Buerger's disease is first reported by Felix von Winiwarter in 1879 in Austria & in 1908 detailed description of 11 amputated limbs at Mt. Sinai with endarteritis & endophlebitis.¹ Buerger's disease is a nonatherosclerotic, segmental, recurrent inflammatory vaso occlusive disorder of the small & medium sized arteries, veins & nerves of the upper & lower extremities. The disorder occurs predominantly in younger men (< 40 years of age). It is typically begins with ischemia of the small, distal arteries & veins, progressing to more proximal

arteries. There is a very strong relationship between buerger's disease & tobacco use.²

Incidence: Buerger's disease is found worldwide, the prevalence among all patients with peripheral arterial disease ranges is low 0.5 to 5.6% in Western Europe & high as 45 to 63% in India.³

Causes: The exact cause cause of buerger's disease is unknown. Although is a type of vasculitis & it is distinct from other vasculitis. Smoking or tobacco plays a central role in the initiation & progression of the disease. By using an antigen-sensitive thymidine-incorporation assay, that patients with TAO have an increased cellular sensitivity to types i & iii collagen compared to that in patients with arteriosclerosis obliterans or healthy males. Then genetic, hypercagulability also responsible but some studies have failed to demonstrate any correlation.

Sign & symptoms: The initial symptoms of Buerger disease often include claudication (pain induced by insufficient blood flow) in the feet/or hands. The pain typically begins in the extremities but may radiate to other part of the body. Other sign & symptoms of the disease may include numbness &/ or tingling in the limbs.⁴

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Diagnosis: There is no laboratory or diagnosis test specific to Buerger disease. It is diagnosed on the basis on age of onset, history of tobacco use & clinical symptoms, imaging studies, x-rays, & blood investigation if necessary.²

Treatment: There is a complete cessation of tobacco use in any form including second hand smoke. Nicotine replacement products should not be used. Other therapy can be considered but have limited success the most commonly used medication are Antiplatelet agents, followed by calcium channel blockers, adrenergic agent, & anticoagulants. Surgical option includes revascularization & sympathectomy. Amputation below the knee may be necessary in advanced cases. The amputation rate on patient who continues tobacco use is 84.3% compared to only 30.6% in patient who discontinue to tobacco use.²

Differential diagnosis: The differential diagnosis of Buerger disease are PAD & variety of other inflammatory or autoimmune disease.

Case study

A case study showed that 37 year old male was admitted in hospital in critical condition; he had a history of current or recent smoking. His medical history revealed the presence of distal extremity ischemia indicated by claudication, severe pain in lower & upper extremities, severe hypertension, & weakness of lower extremities & right side upper

extremities. Examination done i.e. MRI, Doppler, & blood investigation revealed that blockage in the artery & vein of the upper & lower extremities, increased TLC count, increased Hb%, decreased platelet count, & increased serum creatinine & blood urea level. After the investigation & condition of the patient emergency amputation was done of both leg, after that septicemia occurs & patient death in the hospital.

Conclusion

Early diagnosis & complete cessation of smoking is only to prevent Buerger disease & proper motivation, psychological support for cessation of smoking & maintain the healthy life styles is utmost important.

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