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## RESEARCH ARTICLE

### THROMBOANGITIS OBLITERANS - CASE STUDY

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#### Manuscript Info

#### Abstract

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#### Thromboangitis obliterans - case study:-

This disease was first reported by Buerger in 1908, who described a disease in which the characteristic pathologic findings- acute inflammation and thrombosis of arteries and veins-affected the hands and feet. Thromboangitis obliterans is also known as BUERGER'S DISEASE. It is characterized by recurring inflammation of the intermediate and small arteries and veins of the lower, upper extremities. It results in thrombus formation and occlusion of the blood vessel. It is differentiated from other blood vessel diseases by its microscopic appearances.

#### Case study:-

Mr. X was admitted in the hospital with the complaints of pain in hands and feet, feeling of discomfort in moving the joints and burning and tingling sensation in hands. There was no family history of cardiac diseases or hypertension. He was investigated by Duplex ultra sonography- patency the presence of distal extremity. And he was diagnosed to have thromboangitis obliterans.

THROMBOANGITIS OBLITERANS is a recurring inflammation and thrombosis of small arteries and veins of the hands and feet. It is strongly associated with use of tobacco products. It is also known as to be autoimmune disease.

#### Incidence:-

Thromboangitis obliterans affects approximately 6 out of every 10000 people. It almost always affects men 20 to 40 years of age who have a history of smoking or chewing tobacco .This disorder is very common in children, but may occur in toes. It has been reported in all races and many areas of the world.

#### Pathophysiology:-

The blood vessels of the hands and feet are especially affected, becoming constricted or totally blocked. This reduces blood flow to the tissues of hands and feet, resulting in pain and eventually damage .In Buerger's disease, the blood vessel swell and can become blocked with blood clots (thrombo). This eventually damages or destroys skin tissues and may lead to infection and gangrene. Buerger's disease usually first appears in the hands and feet and may expand to affect larger areas of your arms and legs.

**Etiology:-**

The cause of Buerger's disease is unknown, but it is believed to be an autoimmune vasculitis. There is considerable evidence that heavy smoking or chewing of tobacco is a causative or an aggregating factor. The condition may also be associated with a history of Raynaud's disease.

**Clinical manifestation:-**

B o o k p i c t u r e	P a t i e n t ' s p i c t u r e
<p><b>Buerger's disease symptoms include:</b>                      Hands and feet are pale, red and bluish                      Hands or feet may feel cold                      pain in the hands and feet</p> <p>Burning or tingling                      Ulceration with gangrene occurs</p>	<p>Master X gradually developed clinical manifestations. He first presented with pain in the hands and feet. Patient has manifestations of burning and tingling sensations in hands.</p>

**Diagnostic evaluation:-**

B o o k p i c t u r e	P a t i e n t ' s p i c t u r e
<p>A concrete diagnosis of thromboangiitis obliterans is often difficult as it relies heavily on exclusion of other conditions. The commonly followed diagnostic criteria are below although the criteria tend to differ slightly from author to author.</p> <p>Typically between 20-40 years old male, although re                      Current history of tobacco use echocardiography a                      duplex ultrasonography is used to document patency</p>	<p>Presence of distal extremity ischemia (indicated by claudication, pain at rest ischemia ulcers or gangrene) documented by non invasive vascular testing such as ultrasound</p>

**Management:-**

The main objectives are to:

- improve circulation to the extremities , prevent progressions of the disease, prevent extremities from trauma and infection

Absolute discontinuations of tobacco use is only stratagie proven to prevent the progression of Buerger disease  
 Ultimate surgical therapy for refractory Buerger disease is distal limb amputation for non healing ulcers, gangrene or intractable pain.

1. omental transfer
2. Sympathectomy
3. spinal cord stimulated implantation

**Nursing intervention:-**

Complete bed rest was provided with comfortable position. Prescribed medications were administered. Patient was monitored continuously.

Prevention:

- use of well- fitting protective foot wear to prevent trauma and thermal or chemical injury
- early and aggressive treatment of extremity injuries to protect against infection

- avoidance of cold environments
- avoidance of drugs that lead to vasoconstriction

**Summary:-**

The blood vessels like arteries, arterioles, veins. we have seen thromboangitis obliterans, an inflammation of arteries which result in thrombus formation and occlusion of the blood vessels. It is mainly manifested by pain and gangrene formation. TAO can be managed by cessation of smoking amputation sympathectomy and antibiotics

**Conclusion:-**

Thromboangitis obliterans is difficult to diagnose, but once it is investigated it can be treated, but there are some complications that can develop during hospitalization

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