Difference Between Raynaud's Disease and Buerger's Disease

Buerger’s disease and Raynaud’s disease are two vascular disorders. Buerger’s disease is an inflammatory obliterative condition whereas Raynaud’s disease is a vascular ailment that is characterized by the appearance of digital pallor, cyanosis, and rubor. **Raynaud’s disease is commonly seen among young females whereas Buerger’s disease predominantly occurs in middle age smoking males.** This is the key difference between Raynaud’s disease and Buerger’s disease.

What is Buerger’s Disease?

Buerger’s disease (thromboangiitis obliterans) is typically seen among male smokers of 20 to 30 years of age. Inflammatory changes taking place in the vascular wall results in the obliteration of the vascular lumen, compromising the blood supply to the areas that are supplied by the affected vessels.
In a majority of cases, distal arteries are affected, giving rise to claudication in the feet or rest pain in the fingers and toes. Ankle and wrist pulses are absent during the clinical examination. Superficial thrombophlebitis is the end result of Buerger’s disease affecting the veins. Sympathectomy and prostaglandin infusions are helpful in the management of this condition.

**What is Raynaud’s Disease?**

Raynaud’s disease is a vascular ailment that is characterized by the appearance of digital pallor, cyanosis, and rubor. Stimuli such as cold and emotional upheavals can trigger vasospasms, giving rise to the characteristic sequence of pallor due to vasospasms, cyanosis due to deoxygenated blood and rubor due to reactive hyperemia.
Primary Raynaud’s Phenomenon

This usually affects young females of 15 to 30 years of age. Primary Raynaud’s disease is not considered as a serious condition and the chance of it causing ulcerations and infarctions is very low. The patient should be reassured and advised to avoid exposure to cold. Nifedipine can be given to alleviate the symptoms.

Secondary Raynaud’s Phenomenon

Causes

- Connective tissue disorders such as systemic sclerosis
- Vibration induced injury
- Thoracic outlet obstruction (eg: cervical rib)

Unlike primary disease, secondary Raynaud’s disease is associated with the permanent obstruction of the digital arteries, ulceration, necrosis, and pain.

Figure 02: Signs of Raynaud’s Disease
Management

- Fingers must be protected from trauma
- Infection should be treated with antibiotics
- Vasoactive drugs have no clear effect
- Although sympathectomy provides a temporary relief, symptoms recur after few years

What is the difference between Raynaud’s Disease and Buerger’s Disease?

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<thead>
<tr>
<th>Raynaud’s Disease vs Buerger’s Disease</th>
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Summary – Raynaud’s Disease vs Buerger’s Disease

The key difference between Raynaud’s disease and Buerger’s disease is that Raynaud’s disease is commonly seen among young females whereas Buerger’s disease predominantly occurs in middle age smoking males. The presence of any of the symptoms discussed here along with the risk factors such as smoking should be considered as an indication to meet your doctor. Treatments should be taken under the guidance of a physician to avoid the future complications.
References:


Image Courtesy:

1. “Buerger’s Disease.M.V.561” By Milorad Dimic MD – Intermedichbo (CC BY-SA 3.0) via Commons Wikimedia
2. “Secondary Raynaud’s in Sjögren’s syndrome 1” By Intermedichbo – User:Milorad Dimic MD (CC BY-SA 3.0) via Commons Wikimedia

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