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Vascular Rehabilitation



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Foreword
Ashwath Narayan CN

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4 Peripheral Vascular Diseases

DEFINITION

Peripheral vascular disease (PVD) refers to any disease or disorder of the circulatory system outside of the brain and heart. Peripheral vascular disease is the most common disease of the arteries.

GENERAL CLASSIFICATION

The PVD are classified into arterial, venous and lymphatic disorders. Arterial and venous disorders are classified again into acute and chronic disorders. All the PVD may fit into either acute or chronic disorders **(Fig. 4.1)**.

Classification of Arterial Disorders

Fontaine Stages According to Severity

This classification applies to only peripheral arterial disorders. There are four increasing stages of severity, which are as follows:

- *Stage I*: Asymptomatic
- *Stage II a*: Mild claudication (>200 meters)
- *Stage II b*: Moderate to severe claudication (<200 meters)
- *Stage III*: Ischemia rest pain
- *Stage IV*: Ulceration, necrosis or gangrene.

Rutherford Categories of Severity

This classification applies to only peripheral arterial disorders. There are seven increasing categories of severity, which are as follows:

- *Grade I (Category 0)*: Asymptomatic
- *Grade I (Category 1)*: Mild claudication
- *Grade I (Category 2)*: Moderate claudication
- *Grade I (Category 3)*: Severe claudication
- *Grade II (Category 4)*: Ischemia rest pain
- *Grade II (Category 5)*: Minor tissue loss, nonhealing ulcer, focal gangrene, diffuse pedal ischemia

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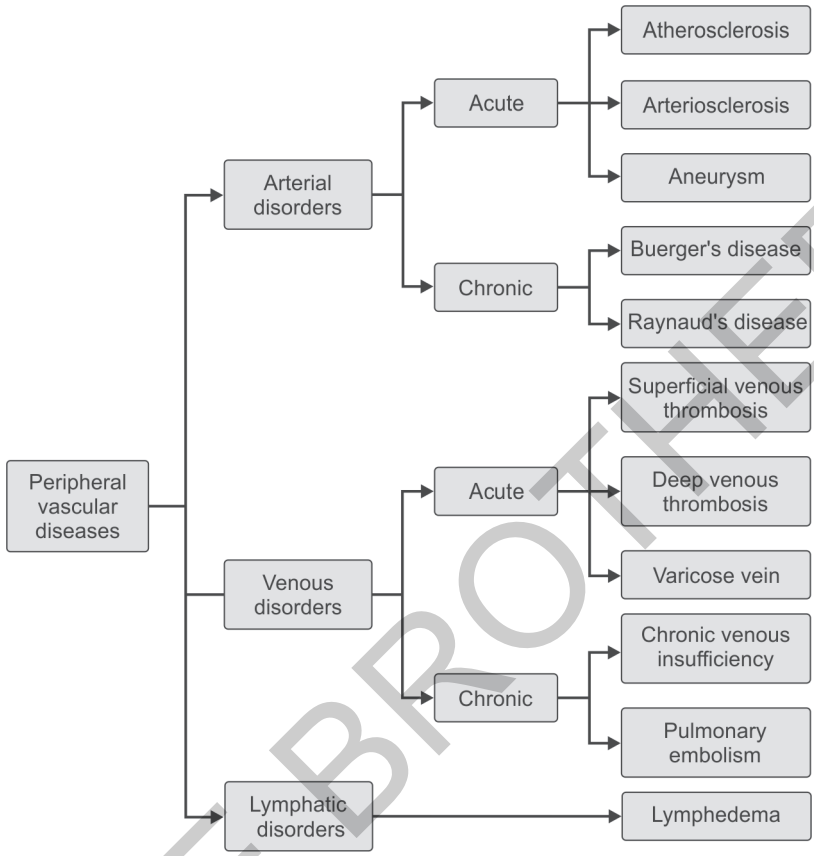

Fig. 4.1 General classification

- *Grade IV (Category 6)*: Major tissue loss extending above transmetatarsal level, foot no longer salvageable.

American Heart Association

The American College of Cardiology/American Heart Association (ACC/AHA) practice guidelines use the following divisions:

- *Asymptomatic*: Absence of leg claudication symptoms.
- *Claudication*: Inadequate blood flow during exercise, causing fatigue, discomfort or pain.
- *Critical limb ischemia*: Compromise of blood flow to extremity, causing limb pain at rest. Patients often have ulcers or gangrene.
- *Acute limb ischemia*: A sudden decrease in limb perfusion that threatens limb viability. These are associated with 5Ps:
  1. **P**ain
  2. **P**aralysis
  3. **P**aresthesias
  4. **P**ulselessness
  5. **P**allor.

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