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## Peripheral vascular disease

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**Objective:** To determine the frequency of peripheral vascular disease, its causes and related complications among the population of Pakistan.

**Introduction:** Peripheral vascular disease (PVD) is a blood circulation disorder that causes the blood vessels outside of your heart and brain to narrow, block, or spasm. This can happen in your arteries or veins. PVD typically causes pain and fatigue, often in your legs, and especially during exercise. It can also affect the vessels that supply blood and oxygen to your arms, stomach, intestines and kidneys. The most common symptom of PVD is claudication. The two main types of PVD are functional and organic PVD. Functional PVD means there's no physical damage to your blood vessels structure. Instead, your vessels widen and narrow in response other factors like brain signals and temperature changes. The narrowing causes blood flow to decrease. The most common causes of functional PVD are emotional stress, cold temperatures, operating vibrating machinery or tools and drugs. The primary causes of organic PVD are smoking, high blood pressure, diabetes and high cholesterol. Additional causes of organic PVD include extreme injuries, muscles or ligaments with abnormal structures, blood vessel inflammation, and infection. There are numerous risk factors for PVD like age over 50, overweight, have abnormal cholesterol, have a history of cerebrovascular disease or stroke, have heart disease, have diabetes, have a family history of high cholesterol, high blood pressure, or PVD, have high blood pressure and have kidney disease on hemodialysis. Complications of PVD can include tissue death-which can lead to limb amputation, impotence, pale skin, pain at rest and with movement, severe pain that restricts mobility, wounds that don't heal, life-threatening infections of the bones and blood stream. The most serious complications involve the arteries bringing blood to the heart and brain. When these become clogged, it can lead to heart attack, stroke, or death.

**Methodology:** This cross-sectional study was conducted from January 2014 - October 2016. Patients over 25 years of age were recruited in this study with a principle complain of limbs pain and numbness. A history and examination form designed from an application "Forms", particularly for the study. Patients were examined according to it and Doppler ultrasound or angiography was done to know the extent of the disease. Significant artery blockages may require surgery like angioplasty or vascular surgery. Angioplasty is a catheter or long tube into artery. A balloon on the tip of the catheter inflates and opens up the artery. In some cases stent was inserted to keep it open. For data analysis SPSS 16.0 software was used.

**Results:** Out of two main types of PVD 41.7% were functional and 58.3% organic PVD. Common causes of functional PVD are emotional stress 29.2%, cold temperatures 17.7%, operating vibrating machinery or tools 16.4% and drugs 36.7%. And among organic PVD, smoking 11.2%, high blood pressure 24.1%, diabetes 26.7% and high cholesterol 22.5%, extreme injuries 4.2%, muscles or ligaments with abnormal structures 3%, blood vessel inflammation 2.3%, and infection 6%. Complications of PVD includes limb amputation 15.3%, impotence 7.9%, severe pain that restricts mobility 11.2%, delayed wound healing 14.2%, life-threatening infections of the bones and blood stream 4.7%, myocardial infarction 20.4% and stroke 26.3%.

**Conclusion:** The two main goals of PVD treatment is to stop the disease from progressing and to help manage pain and symptoms. The treatments will also lower risk for serious complications. First-line treatment typically involves lifestyle modifications that includes walking, a balanced diet, and losing weight. Quit smoking as it directly causes reduced blood flow in vessels. It also causes PVD to get worse, as well as increases risk of heart attack and stroke.

**Biography:** Sonia Shahid is a final year M.B.B.S student of Karachi Medical and Dental College, Karachi Pakistan. She has been a part of several national and international researches and many are ongoing. She has attended several national and international seminars and conferences. She has good knowledge of clinical practices and protocols in variety of settings. Sonia is an inquisitive student with a passion for education as a power for change and improvement in the healthcare field of her country and is very ambitious in pursuing her career.

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