**Prevalence and Risk Factors of Peripheral Vascular Disease in rural India: A cross sectional study**

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**Background:**

Peripheral vascular disease (PVD) is a major cause of morbidity and mortality especially affecting the elderly. PVD is largely undetected due to its silent progression which warrants presymptomatic screening. Ankle brachial index (ABI) is a symptom independent reliable screening tool for PVD in primary care, but remains underused. Our aim was to estimate the burden of PVD in this region and correlate it to various risk factors both quantitatively and qualitatively.

**Materials and Methods:**

From an outpatient medical camp in rural India, 100 patients were recruited randomly. They were assessed for symptoms, medical history and risk factor screening that included 11 well known risk factors using a pre formatted questionnaire. ABI was measured by handheld doppler. ABI <0.9 was considered abnormal. The difference in mean distribution of ABI for risk factors was calculated by Student t­-test and was considered as statistically significant with P < 0.05. Odds ratios for various risk factors were calculated.

**Results:**Based on ABI <0.9, PVD was diagnosed in 57 patients. There was a high prevalence of risk factors like age >55 years (67%), hypertension (66%), smoking (42%) and diabetes mellitus (35%). Mean ABI for hypertensive population is 0.85 (95% CI: 0.83-0.88, P=0.02). Mean ABI for smokers is 0.82 (95% CI:0.79-0.85, P=0.03). Mean ABI for diabetics is 0.80 (95% CI: 0.77-0.87, P=0.04). Multivariate risk analysis for PVD showed significant association with hypertension, smoking and diabetes but less significant for age, gender and family history.

**Conclusion:**

There is a very high prevalence of PVD in the Indian Population which can be attributed to modifiable risk factors as mentioned above. Defining the population at risk and using ABI as an early screening tool would help in prompt treatment and prevent further complications. With the increasingly aging population and subsequent increase in atherosclerotic disease, PVD burden increases, but continues to be underdiagnosed. A simple, inexpensive screening test like ABI is useful for diagnosing PVD in clinical practice. It helps prevent complications and consequent death by timely diagnosis and treatment.

