Peripheral Vascular Disease in a Multicultural Diabetic Asian Population; A Ten-year Experience in a Tertiary Center

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Objectives
The incidence of diabetes is increasing worldwide, with notably higher rates in certain ethnic groups. Despite correcting for an ageing population, the prevalence of diabetes in Singapore is higher than the worldwide average. Whilst prevention of diabetes-related complications is of paramount importance, appropriate management of complications is also necessary to minimise the adverse impact on quality of life. This study aims to identify trends in peripheral vascular disease in diabetics presenting to tertiary care, to identify potential areas as a basis for closer research and resource allocation.

Methods
We analysed a prospective 10 year series of consecutive patients admitted to our centre with diabetic peripheral vascular disease.

Results
A total of 8,451 patient encounters were captured for 4,744 patients from 2008 to 2018. 61.1% were Male, and mean age was 65 years old. A majority of the population (62.8%) were Chinese, followed by Indian (26.4%) and Malay (17.3%).

A total of 4,381 patients underwent surgical intervention, of which the most commonly performed were major amputation (27.9%), wound debridement (26.3%) and ray amputation (21.6%). The most commonly performed procedure for revascularisation was angioplasty (94.3%), followed by bypass (5.1%) then endarterectomy (0.6%). In-hospital mortality rate was 2.5%, and 4.6% of patient visits had bedbound status on discharge.
Conclusion
Peripheral vascular disease in diabetics remains a significant source for morbidity, often with repeated hospital admissions, multiple surgical procedures and a high rate of major amputation. The prevalence of angioplasty and distal amputations is in keeping with various papers linking diabetes to more diffuse, small vessel disease. This highlights the need for patient and community education for prevention and early recognition of complications of peripheral vascular disease, as well as importance of endovascular training of vascular surgeons to manage this particular subset of patients.

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