PERIPHERAL VASCULAR DISEASE AND MICROORGANISMS IN THE ISCHAEMIC LOWER LIMB

KANCHANAMALA RANASINGHE[1*], N.B. ERIYAGAMA[2], C. RATNATUNGA[1], VASANTHI THEVANESAM [2]

[1] *Department of Surgery and* [2] *Department of Microbiology, Faculty of Medicine, Peradeniya*

Peripheral vascular disease (PVD) is a common clinical entity in Sri Lanka. Insertion of lower extremity prosthetic grafts is a treatment option for patients with PVD. Although graft infection is reported as 2 to 5 %, local data is unavailable. Choice of antibiotics for prophylaxis and treatment is dependant on the spectrum of presumptive pathogens.

This study was designed to determine the optimal specimens for bacterial isolation and the spectrum of bacterial pathogens associated with PVD and associated wounds. All male patients with PVD, with a wound in the lower limb, presenting to the surgical unit from 1 May to 31 October 2001, were studied. Ninety five samples were obtained from 34 patients after obtaining informed consent. Fine needle aspirations (FNA) of lymph nodes and wound were made. In addition, a wound swab was obtained. The samples were immediately transported to the laboratory for aerobic and anaerobic culture and antibiotic sensitivity. Identification of bacterial isolates were done using biochemical methods.

Of the study sample, 58% had femoral popliteal disease. The spectrum of bacterial isolates from the three different samples revealed coliforms predominantly; 64% in lymph nodes and 26% in pus swabs.. In lymph nodes *Enterobacter* (29%), *Proteus* (14%), *Acinetobacter* (14%), *Providencia* (29%), *and Erwinia* (14%) were identified. One specimen from lymph nodes yielded anaerobes. Organisms cultured from 93% of pus swabs did not represent the lymph node isolates and organisms cultured from 79% of pus swabs did not represent isolates from FNA of wounds.

Antibiotic sensitivity of all isolates revealed that isolates from lymph nodes were more sensitive to commonly used antibiotics than isolates from surface swabs. This study revealed the presence of Gram negative bacilli in lymph nodes of patients with ischaemic lower limbs. The finding is of concern, as Gram negative infection of prosthetic grafts is known to have devastating consequences.

The discrepancy between the results of surface swabs and aspirates, though not unexpected, provides further evidence for obtaining deep tissue for culture. Antibiotic policies formulated on the results of surface swab culture may be inappropriate and even harmful.