EDITORIAL

VASCULAR INJURIES

Fractures and dislocations are not uncommonly complicated by arterial injuries. Most are diagnosed and treated without delay. Unhappily there are exceptions and these have prompted a group of 15 distinguished vascular surgeons to write collectively to this Journal. Their advice is so clear and cogent that, at the risk of offending those who do not need it, we print their message unchanged.

"We are a group of vascular surgeons and we are concerned that, particularly in busy accident and emergency departments, arterial injuries associated with orthopaedic trauma are not always recognised. This applies particularly to fractures of the femur and dislocations of the knee. We appreciate that surgeons are aware of the importance of checking the distal pulses in such patients, but in spite of this knowledge problems still arise. Every member of this group has seen such a problem after considerable and unacceptable delay.

The use of Doppler in inexperienced hands can lead to a false sense of security because a greatly reduced pressure still produces an audible signal.

Unless easily palpable pulses are present distal to the bony injury, arterial trauma must be assumed to have occurred. Potentially dangerous arterial injuries are not necessarily occlusive. When distal pulses are anything less than easily palpable we would suggest:

- 1) Resuscitate the patient and re-assess within one hour
- 2) Measure Doppler *pressures* in the distal vessels and compare with a Doppler *pressure* from the uninjured limb. These should be equal. If they are not, then seek vascular surgical advice immediately. The Doppler pressure is measured by placing a sphygmomanometer cuff around the calf or upper arm and locating the Doppler signal. The pressure at which this signal disappears on inflation and reappears on deflation of the cuff is the Doppler pressure
- 3) If the hospital does not possess a Doppler or the injury prevents its use then seek vascular surgical advice if there are reduced or absent pulses on the injured side
- 4) Act quickly – delay is the enemy
- 5) Never take refuge in the word 'spasm'!"

Correspondence should be sent to Averil O. Mansfield, ChM, FRCS, Consultant Vascular Surgeon, St Mary's Hospital, Praed Street, London W2 1NY, England.

© 1989 British Editorial Society of Bone and Joint Surgery
0301-620X/89/5201 \$2.00
J Bone Joint Surg [Br] 1989;71-B:738.

B. Bliss	A. O. Mansfield	R. Shepherd
J. W. P. Bradley	H. Naylor	M. Vickery
J. Fairgrieve	E. W. Parry	F. Weale
J. M. D. Galloway	W. G. Prout	J. Webster
J. Lawson	N. Rothnie	E. J. Williams