Abstract
OBJECTIVE: This study analyzes the causes of injuries, presentations, surgical approaches, outcome and complications of vascular trauma of the upper limbs, in spite of limited hospital resources. METHODS: A 5-year retrospective analysis. From 01/01/2001 to 31/12/2005, 165 patients were operated for vascular injuries at King Fahd Hospital, Medina, Saudi Arabia. Of all peripheral vascular trauma patients (115), upper limb trauma was present in 58. Diagnosis was made by physical examination and hand-held Doppler alone or in combination with Doppler scan/angiography. Primary vascular repair was performed whenever possible; otherwise, the interposition vein graft was used. Fasciotomy was considered when required. Patients with unsalvageable lower extremity injury requiring primary amputation were excluded from the study. RESULTS: Fifty patients were male (86%) and eight were female (14%), aged between 2.5-55 years (mean 23 years). Mean duration of presentation was 8 h after the injury. The most common etiological factor was road traffic accidents, accounting for 50.5% in the blunt trauma group and 33% among all penetrating and stab wound injuries. Incidence of concomitant orthopedic injuries was very high in our study (51%). The brachial artery was the most affected (51%). Interposition vein grafts were used in 53% of the cases. Limb salvage rate was 100%. CONCLUSION: Patients who suffer vascular injuries of the upper extremities should be transferred to vascular surgery centers as soon as possible. Decisive management of peripheral vascular trauma will maximize patient survival and limb salvage. Priorities must be established in the management of associated injuries, and delay must be avoided when ischemic changes are present.

Keywords
Vascular trauma, upper extremity, vein interposition.