



AN INITIAL OUTCOME OF MANAGEMENT OF PERIPHERAL VASCULAR INJURY

General Surgery

**Dr. Ramanuj Mukherjee** MS DNB MNAMS MRCS FMAS, Associate Professor, General Surgery, RGKar Medical College. Kolkata 700004 \*Corresponding Author

**Dr. Prosenjit Das** MS MRCS; Registrar. Apollo Hospital Kolkata. (second author)

**Dr. Gouri Mukhopadhyay** MBBS PGDCR (MS) Resident surgery, IPGMER, Kolkata.

**Dr. Dilip Das** MS Associate professor, General Surgery, RGKar Medical college. Kolkata 700004

**Dr. Gautam Bhowmik** MS FRCS ; Consultant Vascular and General surgeon.

KEYWORDS

Introduction:

Vascular injuries are a common encounter for a general surgeon working in a high volume secondary care center dealing with accident and emergency. The present series is a retrospective data on a single surgeon experience of dealing with vascular injuries in a surgical unit over a timeframe of 14 months.

Material & methods

The present study was a retrospective study based on the patient management records collected from the personal series of the primary author. The parameters collected and outcomes are discussed in table 1.

Results

Table 1 Spectrum of vascular injuries encountered over a duration of 14 months in a General surgical unit

Axillary n=2	Stab	24; minimal	Partial (vein in 1)	Vein patch	1 case
Brachial n=7	Suicidal # Farming	Minimal to 7 days	Compression 2 Partial 3 Complete 2	EEA vein graft	5 cases
Femoral n=12	Butcher 1 Gun Shot 2 Pelvis # 4 Iatrogenic 2 Orthopedic 3	Minimal to 13 days	Contusion 1 Partial tear 6 Complete 5 Vein in 4 cases	EEA 5 Vein patch 5 Vein graft 1	9 cases (1 death 2 amputations)
Popliteal n=5	Cock fight 2 Orthopedic 2 # femur 1	Minimal to 36 hours	Partial transection 2 Complete 3 Vein 3	EEA 5	4 cases 1 amputation
Trifurcation ATA/PTA/PA 2/3/0	Orthopedic 2 Fracture 2 Cock fight 1	Minimal (on table) to 48 hours	Complete injury 5	Ligation 2 Vein graft 3	1 case only?

Discussion

PRIMARY SURVEY AND INTERVENTIONS

- According to ABCDE algorithm, with special pre-caution to maintenance of circulation and control of visible external bleeding from injured vessels.
- Disability, as fractured long bones, should also be stabilized.
- Closed fractures are stabilized using Hare traction, knee immobilizers, or plaster splints

- Open fractures should be covered with betadine-soaked gauze and dressings.

SECONDARY SURVEY (SUSPICION OF INJURY)

History:

- Penetrating wound
  - Gunshot
  - Stab wound
  - IV drug abuse
- Blunt trauma adjacent to major artery
  - Joint displacement
  - Bone fracture
  - Contusions
- Iatrogenic vascular trauma
  - Arteriography
  - Cardiac catheterisation

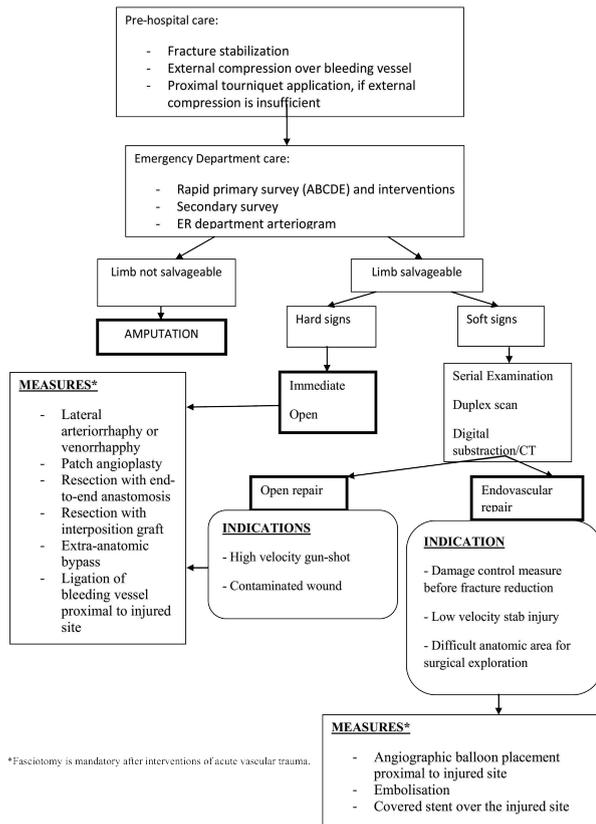
Physical Examination:

Detailed clinical examination including proximal and distal arterial pulses with soft tissue injury scores and long bone fracture. Limb viability and severity of associated nerve injury should also be looked into.

Signs of Arterial Injury:

Hard signs	External arterial bleeding		Immediate surgical intervention
	Rapidly expanding hematoma		
Palpable thrill		Serial examination Arteriogram Duplex	
Audible bruit			
Soft signs	Obvious arterial occlusion		
	<ul style="list-style-type: none"> <li>• Pulselessness</li> <li>• Pallor</li> <li>• Paresthesia</li> <li>• Pain</li> <li>• Paralysis</li> <li>• Poikilothermia</li> </ul>		
	History of arterial bleeding at the scene		
	Proximity of penetrating wound or blunt trauma to major artery		
	Diminished unilateral distal pulse		
	Small non-pulsatile hematoma		
Neurogenic deficit			
Abnormal Ankle-brachial pressure index (<0.9)			
Abnormal flow velocity waveform on Doppler			

MANAGEMENT ALGORITHM OF PERIPHERAL ARTERIAL INJURY



**REFERENCES**

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