Arterio-venous Fistula with pseudo-aneurysm Of Major Trunk Vessels. Surgery or Endovascular management?

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Disclosure

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I do not have any potential conflict of interest
Introduction:

Combined pseudo-aneurysms and arterio-venous fistulas of the carotid-Jugular and subclavian artery and vein caused by trauma are extremely rare. In most series penetrating trauma is the most frequent cause.

Untreated, these lesions may lead to major complications. Often the fistula is missed during the acute phase of injury. Postoperative complication rate of 24% and mortality ranges from 5% to 30% in various series.
34-year-old man presented with history of firearm injury to the left side of the neck of 9 months duration.

Main complaint was loud murmur and inability to sleep. Examination revealed pulsating neck swelling with palpable thrill and very loud machinery murmur.
Surgical Treatment
Outcome

The best answer was:

“It is the first time to sleep well without noise since the last 9 months”
Said the patient.
Case History 2

• A male patient 22-year-old with recent injury by gunshot in the left clavicular region presented with critical ischemia and severe cyanosis of the left upper limb two weeks after the initial injury.

• Left clavicle was fractured. Palpable thrill and machinery murmur were found on examination.
Endovascular management was decided by placement of covered stent in the injured subclavian artery.
Next Day

Symptoms recurred with absent pulse and upper limb cyanosis.
Surgical correction

- General anesthesia.
- Combined supra and infra-clavicular incision.
- Mini-lateral thoracotomy for proximal control of the left subclavian artery.
- Subclavian-axillary bypass with Dacron graft 6mm.
- Repair of the left subclavian vein.
Outcome
Conclusion:

• Arterio-venous fistulae of major trunk vessels are rare and usually caused by penetrating injuries.
• Surgical treatment is the best option.
• Although, endovascular repair is an excellent technique especially in inaccessible area or unfavorable patient condition. still no evidence supports this concept.
Thank you
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