Ateşli Silah Yaralanmasina Bağli Geç Dönem Gelişen Subklavian Arter-Ven Fistülü

Late Onset Subclavian Artery - Vein Fistula Due To Gunshoot Wound

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ÖZET

Travmatik arteryo venöz (A-V) fistüller genellikle ateşli silah yaralanması sonrası ortaya çıkar ve travmadan yıllar sonra tanı konabilir. Birçok A-V fistül alt extremitede görülürken subklavyen A-V fistüller çok daha az görülmektedir. 81 yaşında bayan hasta boyun sağ üst ön kısımda şişme şikayeti ile başvurdu. Hasta hikayesinde 30 sene önce bu bölgeden ateşli silah ile yaralandığını belirtti. Hastaya yapılan tomografi ve Manyetik Rezonans (MR) anjiografilerde sağ subklavyen arter ve ven arasında A-V fistül tespit edildi. Hastaya endovasküler cerrahi ile fistül kapatılması planlandı ancak hasta kabul etmedi. Biz bu yazıda 30 sene önce sağ boyun bölgesinden ateşli silah ile yaralanan ve sonrasında subklavyen A-V fistül gelişen olguyu sunmayı amaçladık.

Anahtar Kelimeler: Arteriovenöz fistül, ateşli silah yaralanması, subklavian arter

ABSTRACT

Traumatic arterio-venous fistula usually results from gunshot wounds. A-V fistula may be diagnosed several years after trauma. Most of the A-V fistulas are seen at lower extremities but Subclavian A-V fistula is less common in general. A 81 year old woman was admitted to hospital with swelling at right anterior portion of neck which happened 30 years ago because of gunshot wound.. Computed tomography and magnetic resonance (MR) angiography showed arteriovenous fistula between distal part of right subclavian artery and subclavian vein. Endovascular surgery was planned, but patient and her relatives did not accept operation. We want to report an arteriovenous fistula which was happened 30 years before due to gunshot wound.

Key words: Arteriovenous fistula, gunshot wound, subclavian artery

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INTRODUCTION

Traumatic arterio-venous fistula usually results from gunshot wounds, fractures or penetrating traumas where artery and vein go side by side. A-V fistula may be diagnosed several years after trauma. About half of the traumatic A-V fistulas occur at lower extremities (1). Careful examination reveals a pathognomonic machinery murmur and thrill over the site of injury (2). We want to report an arteriovenous fistula which was happened 30 years before due to gunshot wound.

CASE

A 81 year old woman was admitted to hospital with swelling at right anterior portion of neck which happened 30 years ago because of gunshot wound. Pulsatile mass lesion has trill with palpation (Fig 1). Doppler ultrasonography was done and arteriovenous fistula due to trauma was detected between subclavian artery and vein. Computed tomography and magnetic resonance angiography showed arteriovenous fistula between distal part of right subclavian artery and subclavian vein and it was measured about 17 mm widht (Fig 2). Calibration of right subclavian artery after fistula was decreased whereas calibration of subclavian vein was increased.

Endovascular surgery was planned, but patient and her relatives did not accept operation.

Figure 1. Gunshot wound on the skin entry site

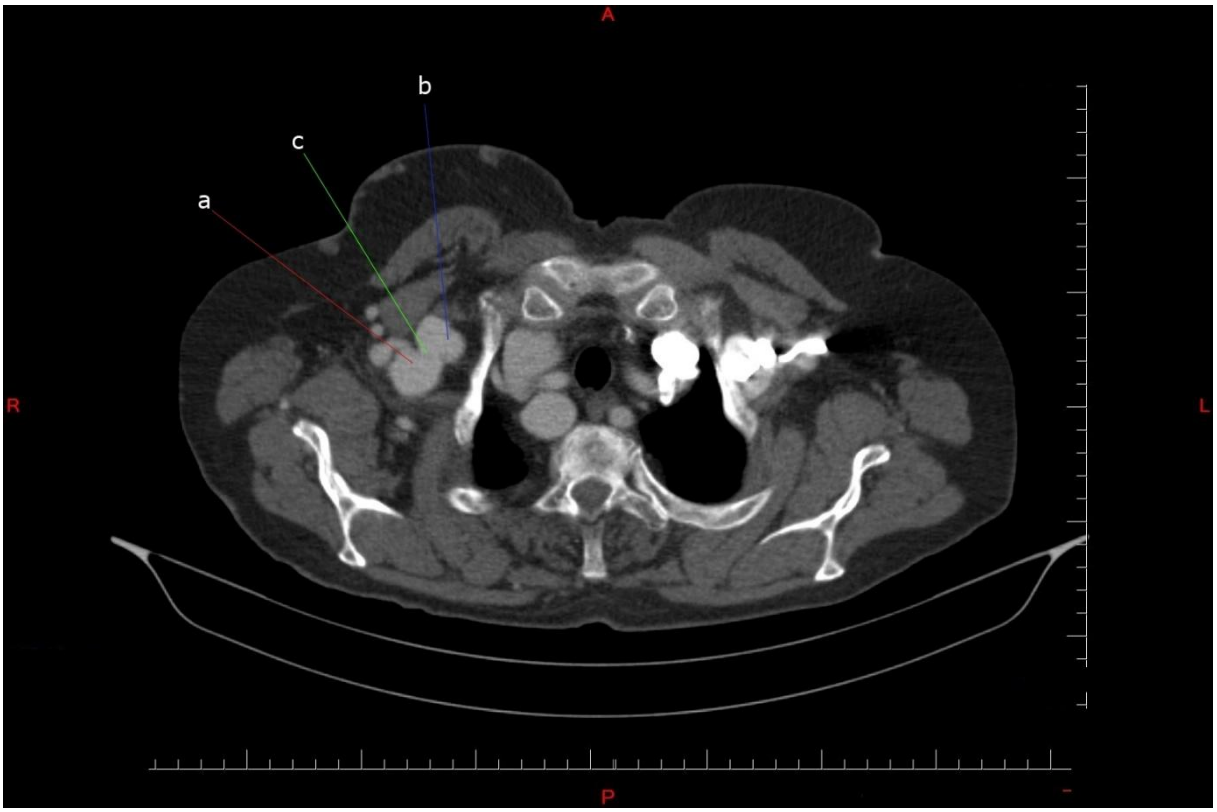

Figure 2. Tomographic imaging of subclavian arteriovenous fistula
a: subclavian artery, b: subclavian vein, c: subclavian arteriovenous fistula

DISCUSSION

Most of the A-V fistulas are seen at lower extremities. Femoral, popliteal, common carotid, subclavian artery, aorta and innominate artery involvement are 29%, 16%, 4.5%, 3.2%,1.7% and 0.3% respectively (1).

Physical examination is very important to diagnose A-V fistula. Pulsatile mass, systolodiastolic murmur is important for diagnosis. Angiography is mainstay to detect communications and hemodynamic of fistula. Doppler ultrasonography is an important noninvasive radiological imaging modality. Angiography should be done to penetrating injury where close to vascular structure is.

The physican has to decide to make or not to make operation for A-V fistula. Need and time for surgery depend on localization, size, local and systemic effects of fistula. Large and traumatic fistula as early as should be operated. Small and asymptomatic A-V fistulas usually may not need surgery. Small fistulas can be closed spontaneously (3). Direct surgical repair of long-standing traumatic A-V fistula can be challenging due to the obvious venous hypertension and the surrounding scar tissue. The development of endovascular technology

may offer potential alternative options for occlusion of these A-V fistula **(**4,5). We have planned endovascular surgery for our patient, but she did not accept operation.

Transluminal intraarterial stent or Polytetrafluoroethylene (PTFE) greft which is expandable with baloon are alternative ways of treatment instead of surgery. Elastic compression, laser application, sclerotheraphy and embolisation could be used to treat A-V fistula (3).

CONCLUSION

If there is suspicion for A-V fistula, the traumatic lesions which are close to main vascular structures should be imaged by Doppler ultrasonography and angiography.

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