

esternotomía mediana, y las incisiones de "portezuela torácica" para el control vascular proximal y la reparación. Nuestra conclusión es que el uso liberal de la angiografía está indicado en pacientes estables con heridas penetrantes en la vecindad de arterias mayores y con trauma cerrado asociado con un déficit neurológico no explicable a la luz de tomografía computarizada. Aquellos pacientes con una lesión arterial obvia debe ser sometidos a exploración inmediata. Se requiere una amplia exposición para el adecuado manejo quirúrgico. Las lesiones por trauma cerrado de la carótida pueden ser manejadas en forma óptima con anticoagulación.

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Invited Commentary

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The international tragedy of cervicothoracic arterial injuries was documented by Lacey [1]—he cited that, in March, 1975, King Faisal of Saudia Arabia was killed by his nephew's assassin's bullet wound to the carotid artery. Surgeons from the Elvis Presley Regional Trauma Center in Memphis, Tennessee, have reviewed their 13 year experience of 118 patients with thoracic outlet arterial injury.

The authors conclude that:

1. The majority of patients have clinical symptoms suggestive of vascular injury.
2. Arteriography is more helpful than computed tomography scanning in the hemodynamically stable patient.
3. In blunt injury to the carotid artery, anticoagulation is the preferred method of treatment.

4. It is preferable to use a vein if a substitute conduit is required in the carotid artery (based on 2 patients), whereas synthetic grafts are acceptable in the subclavian artery location.
5. A left-sided "trap door" incision is rarely indicated, and a right-sided "trap door" incision is not indicated.
6. Claviclectomy aids in exposure of subclavian artery injury.
7. Patients with carotid artery injury presenting in coma have a bad prognosis.
8. There is a high incidence of neurologic complications of thoracic outlet injury (not the method of repair), and these are frequently permanent.

The only 2 "new" or "controversial" issues in this well-written report relate to injuries of the carotid artery. The use of anticoagulation as a primary and preferred method of treatment in patients with blunt carotid artery injury seems to be supported by the small series reported. In that this group of patients did not already have any presenting neurologic complications, this may have been more the effect of patient selection than a function of the anticoagulation.

The strong support for a vein rather than synthetic prosthesis in the carotid artery when a substitute conduit is required is NOT born out by this reviewer's experience. The numbers are

too small to support this particular bias. Several investigators have successfully used Dacron®, Goretex®, and other synthetic materials in the carotid artery [2, 3]. It is well known that proper graft size and suture technique are essential to preventing "pursestring" of the anastomosis when using synthetic material.

Innominate artery injury in this series was basically managed by lateral arteriorrhaphy, even for blunt injury. The bypass technique is an attractive alternative used by other investigators [4]. With proximal innominate artery injuries, the bypass technique is safer than a lateral arteriorrhaphy or an end-to-end anastomosis [5].

Finally, it is extremely interesting that this 13-year experience did *NOT* contain any vertebral artery injuries. As pointed out by both Reid and Weigelt [6] and Golueke and associates [7], injuries in this location are much more common than frequently appreciated. In that the Memphis group recommend liberal arteriography, the paucity of vertebral artery injuries is

either a lack of coding and reporting or an interesting geographic anomaly.

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