

Vascular Injuries in the Modern Era

Alexander Oberhuber*

Department of Vascular and Endovascular Surgery, University of Düsseldorf, Germany

*Corresponding author: Alexander Oberhuber, Department of Vascular and Endovascular Surgery, University of Düsseldorf, Germany, Tel: 0211/81-17390; Fax: 0211/81-19091; E-mail: Alexander.Oberhuber@med.uni-duesseldorf.de

Rec date: February 25, 2014; Acc date: March 23, 2014; Pub date: March 26, 2014

Citation: Oberhuber A (2014) Vascular Injuries in the Modern Era. Emergency Med 4:184. doi: 10.4172/2165-7548.1000184

Copyright: © 2014 Oberhuber A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Letter to the Editor

Vascular injuries, penetrating and blunt, are increasing in the modern world. Whereas penetrating injuries are common in wartime, most blunt injuries are road traffic accidents. All regions, including extremities, thoracic and abdominal cavities and the brain can be involved. Major problem is exsanguination with rapid decease of the injured person. Apart from this, injuries can lead to vascular occlusion with consecutive ischemia of the distal region. Depending of the region the ischemia is more or less serious. Whereas ischemia time for the extremities is about six hours, other organs like bowel, kidneys and brain have shorter tolerances.

The most important in finding diagnosis is to be aware of vascular injuries. Years ago the gold standard was angiography. Nowadays where minimal invasive treatments are more and more increasing and the technique is improving, the contrast enhanced CT becomes the gold standard. It offers not only direct visualization of the bleeding and co-injured organs, but also gives the opportunity to plan the endovascular procedure, E.g. Stentgraft for the acute thoracic aortic transection. The angiography as a sole diagnostic tool is reserved for unclear cases, but is mostly used also for bleedings in inaccessible regions for conventional surgery e.g. bleeding from deep branches of the hypo gastric artery.

Therapy is in most cases challenging and planning (approach, achieving hemostasis, reconstruction and maintaining blood flow)

crucial for successful intervention. In direct reconstruction vein as bypass material should be preferred, due to the higher patency rates in the mostly young patients and often infected surrounding tissue (E.g.: penetrating wounds, concomitant bowel disruption...). An intraluminal shunt can be necessary as damage control before definitive treatment to save time. Last but not least long-term follow up is very important. Vein grafts degrade over the time aortic stent grafts can migrate.

An adequate diagnosis and a sophisticated therapy by a vascular specialist are necessary to manage life-threatening vascular injuries [1-4].

References

1. Robbs JV (2002) Penetrating vascular injuries: principles of diagnosis and management. *Gefäßchirurgie* 7: 195-201.
2. Hupp T, Eisele R (2002) Traumatische Extremitätenverletzung mit Knochen- und Gefäßbeteiligung: Prioritätentriage, Interdisziplinäres Management. *Gefäßchirurgie* 7: 202-207.
3. Oberhuber A, Erhard L, Orend KH, Sunder-Plassmann L (2010) Ten years of endovascular treatment of traumatic aortic transection--a single centre experience. *Thorac Cardiovasc Surg* 58: 143-147.
4. Feliciano DV (2010) Management of peripheral arterial injury. *Curr Opin Crit Care* 16: 602-608.