


UNIVERSITÄTS  
KLINIKUM  
HEIDELBERG

VEITHSYMPOSIUM  
Connecting The Vascular Community



AJM  
AVD

## Abdominal Vascular Injury (AVI)

When open, when endo ?

**Dittmar Böckler**  
Department of Vascular and Endovascular Surgery  
University Hospital Heidelberg, Germany

UK HD

### Disclosures

- **Consultancy**
  - Arsenal, Arterica, BrainLab, Cook, Endologix, Gore, Medtronic, Philips
- **Research grant /research support**
  - BrainLab, Cook, Dietmar-Hopp-Foundation, Gore, Maquet, Medtronic, Siemens
- **Advisory Board**
  - BrainLab, Endologix, Gore, Medtronic, Philips
- **Paid speaker**
  - Abbott, Cook, Endologix, Gore, Maquet, Medtronic, Siemens
- **Major stakeholder**
  - none

*No Conflicts of Interest*

UK HD

VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

### Introduction:Vascular Trauma (VT) & Abdominal Vascular Injury (AVI)

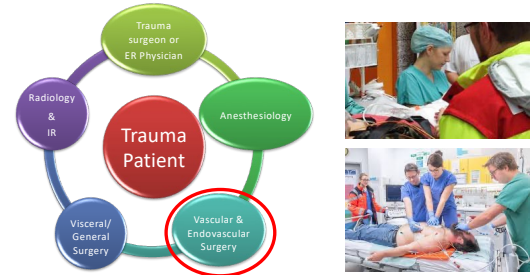
- Vascular trauma (VT) is a leading cause of mortality worldwide
- AVI accounts for a moderate percentage of military and civilian trauma
- But, overall incidence is increasing - both in military and civilian settings
- VT are rarely isolated, concomitant injuries are frequent
- Depending on countries, VT is a significant clinical challenge to health care
- Algorithms and decision making SOP for management of AVI are mandatory

Ref.: Kobayashi et al)

UK HD

VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

### Multidisciplinary Team for Trauma Management



UK HD

VEITHsymposium 2024 | 22.11.2024 | Algorithm Vascular Trauma | Dittmar Böckler | Heidelberg, Germany

### Skills needed for Vascular Surgeons in Trauma

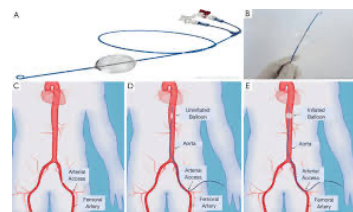
Open surgical	<ul style="list-style-type: none"> <li>• access</li> <li>• Intraop. bleeding control</li> </ul>
Endovascular	<ul style="list-style-type: none"> <li>• coil embolisation</li> <li>• stentgrafting</li> <li>• REBOA</li> </ul>
Others	<ul style="list-style-type: none"> <li>• radiological expertise</li> <li>• coagulation management</li> <li>• shock management</li> </ul>

UK HD

VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

### REBOA

- **R**esuscitative
- **E**ndovascular
- **B**alloon
- **O**clusion
- **A**orta



UK HD

VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany



**Case example #1:**  
Isolated Grade 1 RA Injury after Blunt Trauma in Region 2 in a stable 20 y female pat.

UK HD VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

**Case example #2:**  
41 yr male pat., car accident, blunt deceleration trauma, isolated abd. aortic dissection

UK HD VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

**Summary & Conclusions**

- Incidence of vascular trauma and abdominal vessel injury is increasing
- Multidisciplinary approach is key
- Endovascular and open surgical skills are needed
- CT is the diagnostic tool of choice
- Stable isolated injuries > endovascular first attempt
- Associated injuries, bleeding, shock ensure immediate open surgery
- Management algorithm is helpful and recommended
- Circulatory stability, grade of injury and region of trauma are key criteria

UK HD VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

**Summary & Conclusions**

- Incidence of vascular trauma and abdominal vessel injury is increasing
- Multidisciplinary approach is key
- Endovascular and open surgical skills are needed
- CT is the diagnostic tool of choice
- Stable isolated injuries > endovascular first attempt
- Associated injuries, bleeding, shock ensure immediate open surgery
- Management algorithm is helpful and recommended
- Circulatory stability, grade of injury and region of trauma are key criteria

UK HD VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

International Symposium  
**CHARTERING CROSS**

Vascular & Endovascular  
Challenges Update

**SAVE THE DATE**  
23-25 APRIL 2025  
WEDNESDAY-FRIDAY  
**EXCEL, LONDON**  
UNITED KINGDOM

UK HD VEITHsymposium 2024 | 22.11.2024 | Abd. Vessel Injury Management | Dittmar Böckler | Heidelberg, Germany

CXSYPHIUM.COM

CONTOVERSIES CHALLENGES CONSENSUS