Venous ruptures are rare, but.......
Disclosure

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I have the following potential conflicts of interest to report:

- Consulting
  - Bard
  - Boston Scientific
  - Cook Medical
  - Creganna
  - Marvao Medical
  - Medtronic
  - Mermaid

- Stockholder of a healthcare company
  - Marvao Medical, Vetex
Case History

- 47 y old female
- Diagnosed with Endometrial Cancer Nov 2016
- While undergoing hysterectomy and pelvic clearance the R EIV was damaged
- Vascular surgical team called in- repaired vessel
- 5 days later R leg started to swell
Difficult to identify thrombosis
R EIV poorly defined

Right leg is swollen
Right leg swelling persisted- Direct CTV R foot injection with compression stockings:
R upper CFV and EIV occlusion

Technically should be crossable

Then:
- IVUS balloon 14mm @ 20 atm
- stent 14/150 venous stent
- repeat balloon 14mm @ 20 atm
At this stage patient had some pain
Not exceptional
Battlestations

- Call for help
- Put in more IV lines
- Establish arterial access
- Get a stent in as quickly as possible
Did you say insert a BARE STENT???

Post Cook ZV 14/140
I felt we had stabilised situation.....

• However nurses said BP was hard to get??????

• Decided to place a large bore neck line and arterial access
On seeing arterial angio and CONFIRMING systolic BP of 47mmHg I called a code
Patient arrested three times in next 2 hours

Needed 23 units of blood

Without the skill and expertise of my vascular surgical colleagues (Professor S. Sultan) she would undoubtedly have died
Learning points

• Venous rupture is more likely vertically orientated than transverse- so stent grafts may need to extend several cm north and south of “tear”

• In this patient surgeon said the tear was way up near the IVC!!!!!!
Recognize those patients in whom it is more likely to occur; in those consider

- 3 point access (IJV/CFV R L)
- Arterial access
- Central venous access
- GA
- Urethral catheter
- Having EVAR kit in lab ready to go
- Blood grouped and crossed
- Surgical back up immediately available on site
Which patients are at higher risk?

Factors which possibly increase risk of rupture

• Post thrombotic
• Post prior surgical repair of vein
• Post radiotherapy
• Post repeated venous catheterisation

Not significant

• Age
• Sex
• Cancer
• Acute DVT
• IVC v Iliac
How rare is a SERIOUS rupture?

• An email to most European centres suggested 4 ruptures in > 1200 cases- so perhaps 1/300

• Be prepared..................

• Proper Planning Prevents Poor Performance