

Riding the Waves of Vascular Ultrasound
Symposium 2021

Phlegmasia Cerulea Dolens

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Presentation

- 46 year old male
- Had an unwitnessed collapse in the shower at home
- 12 minutes of bystander cardiopulmonary resuscitation, a further 6 minutes of paramedic cardiopulmonary resuscitation then had return of spontaneous circulation
- Intubated on scene

Further History

- School Teacher
 - Home with Wife
 - No PMHx
 - Allergic to Penicillin – rash
 - Non-smoker, non-drinker
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- In the last month had groin and back pain
 - No recent change in bowel habits, fevers, colds, weight loss

Examination

In the emergency department

- A – ETT
 - B – PS 10, PEEP 10, FiO₂ 0.5
 - C – BP 160/80, not on any supports
 - D – sedated with fentanyl and propofol
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- Chest clear
 - Abdomen soft, non-tender
 - HSDNA
 - Solid mass in posterior right testicle

Investigations

- Bloods
 - FBE Hb 156, WCC 17.7, Plt 234
 - UEC Na 138, K 6.0, Cl 110
 - LFTs NAD
 - Troponin 38

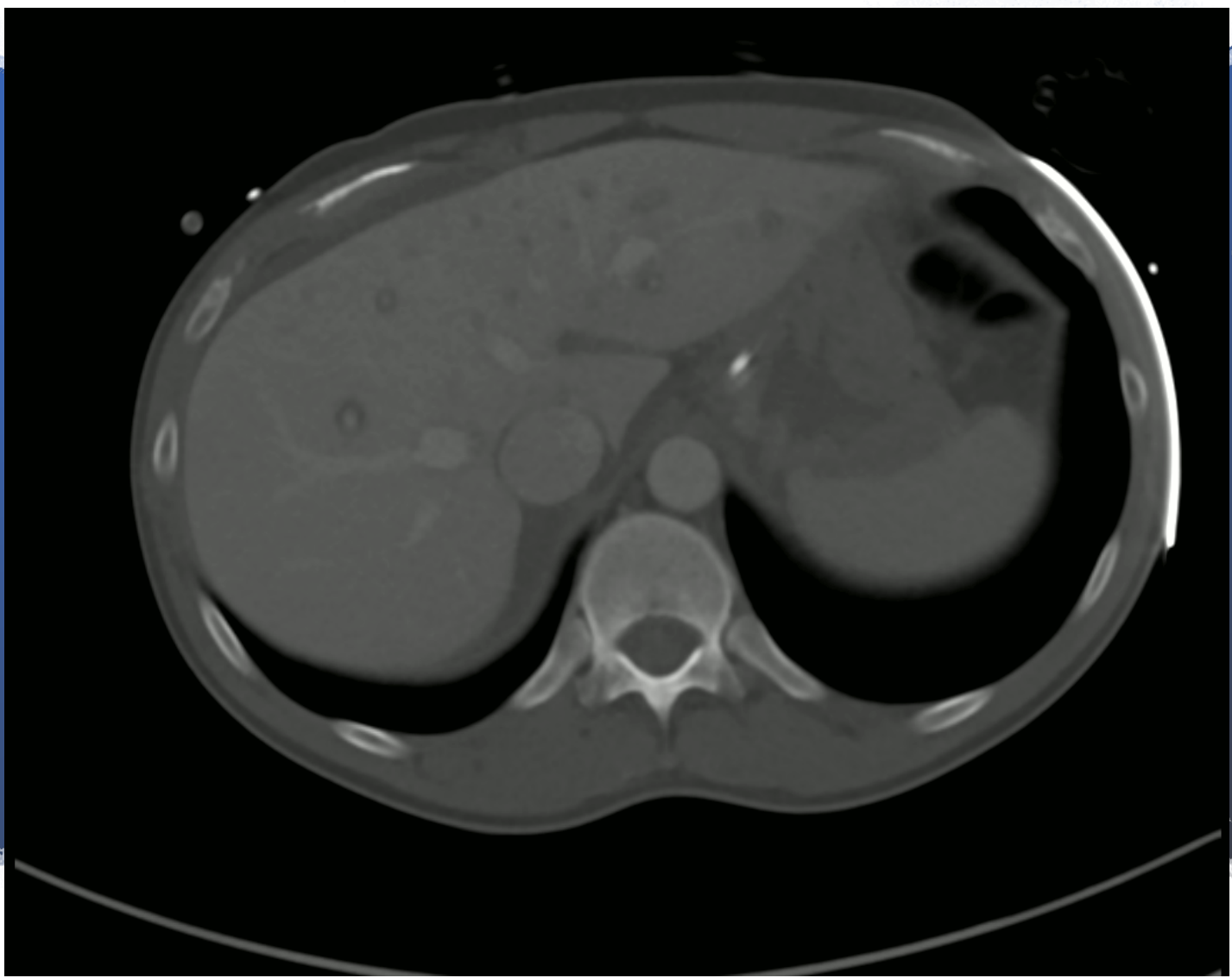
- ECG – Sinus Rhythm

- Imaging
 - CTB
 - CTCAP

saddle pulmonary embolus with large burden of thrombus extending into both right and left pulmonary arterial circulations, abnormal retroperitoneal aortocaval lesion demonstrating regions of central necrosis

in continuity with the ICV with large burden of tumour thrombus within the IVC extending to approximately 1.7cm below the insertion of the left renal vein

right scrotum enlarged with ill defined regions of enhancement



Impression

- Extensive pulmonary emboli and deep vein thrombosis likely in the setting of testicular cancer
- High risk thrombolysis given potential tumour infiltration

Progress

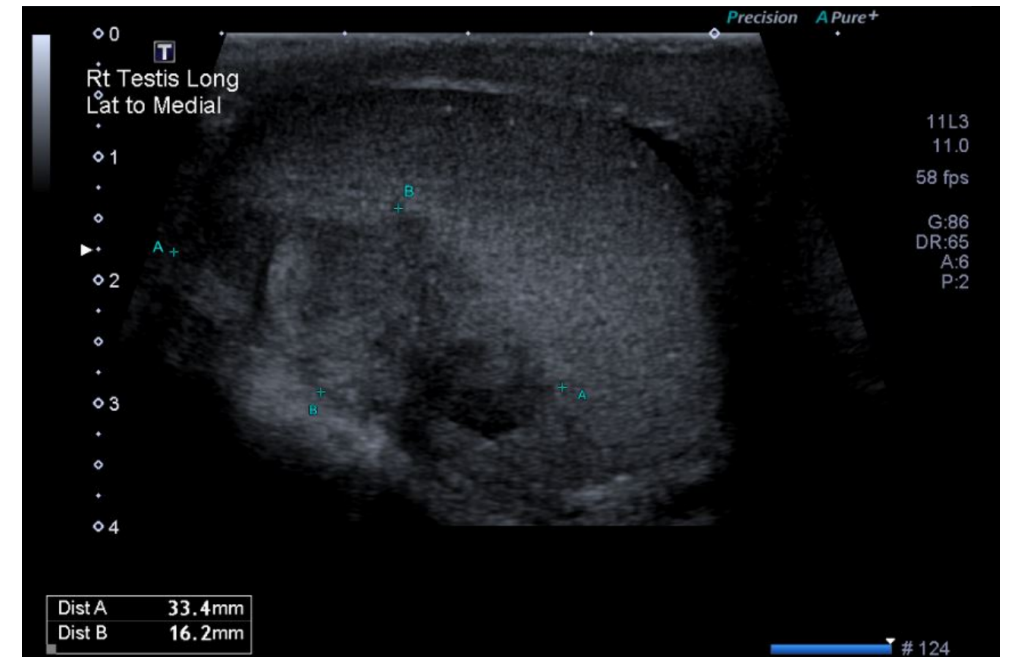
- Rheolytic Thrombectomy and IVC Filter insertion
- In ICU post-procedure intubated, not on supports
- Therapeutic anticoagulation with heparin
- Reviewed by oncology and due to elevated alphafetoprotein and US findings, likely to have nonseminomatous testicular germ cell tumour
- Developed acute kidney injury requiring haemofiltration

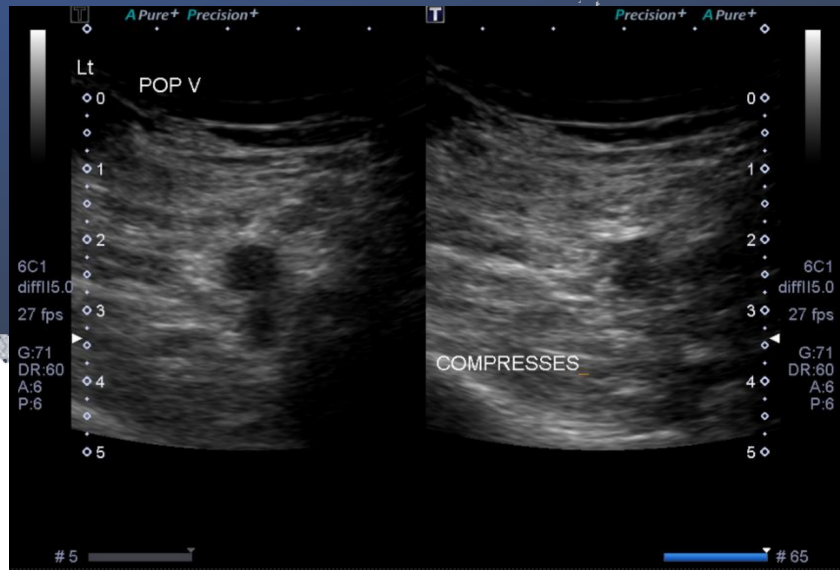
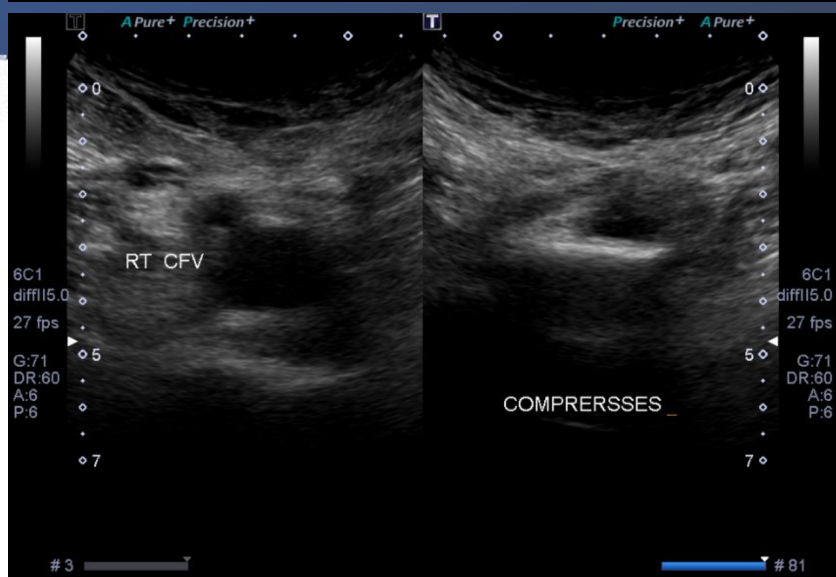
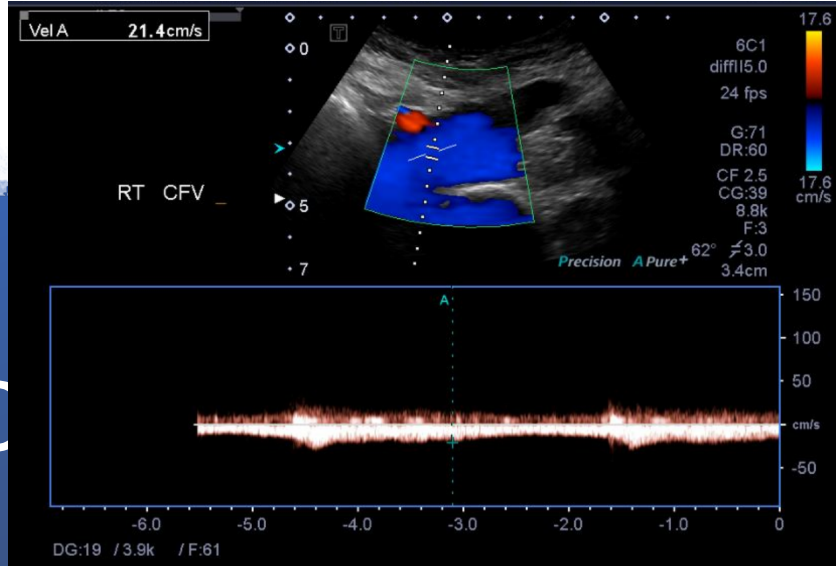
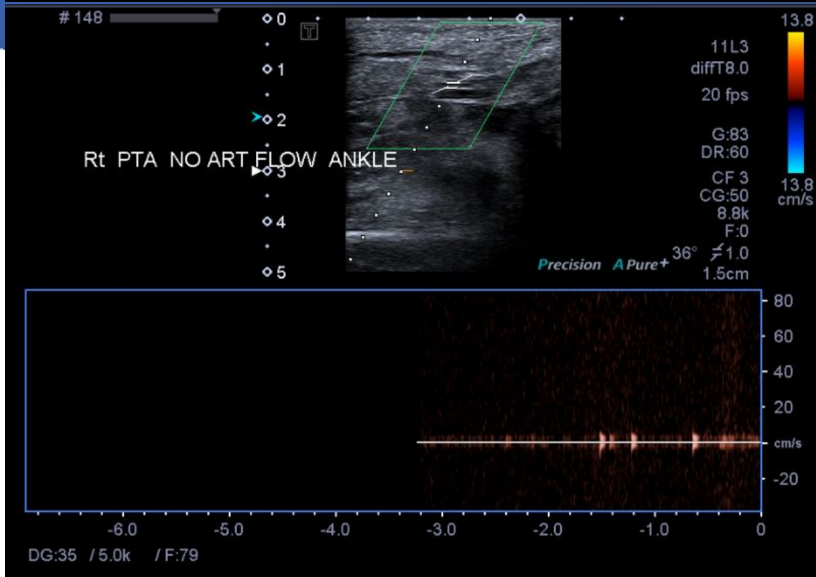
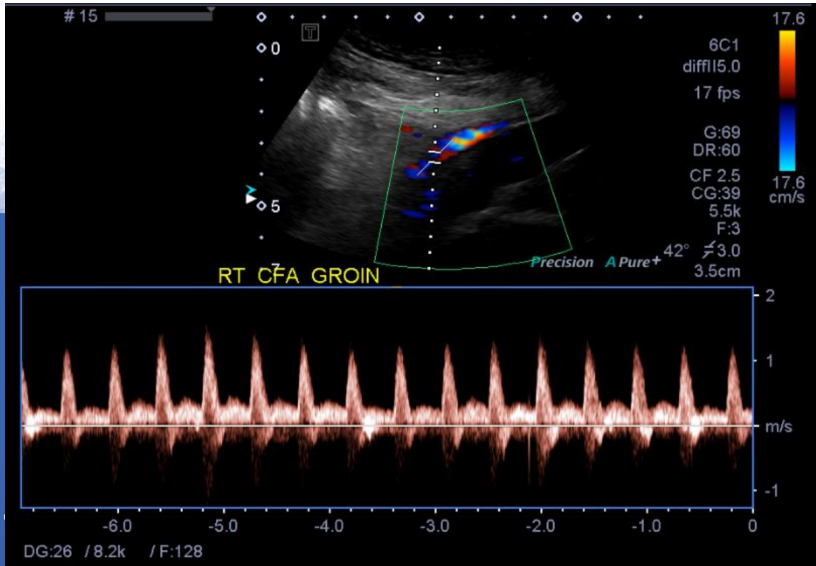


Bilateral lower limb ischaemia

- On admission had cold dusky toes and weak pedal pulses
- Thought likely from resuscitation however not improving by D3 so vascular team consulted
- Diagnosed with Phlegmasia Cerulea Dolens with evolving venous gangrene
- Treatment would involve open or endovascular reconstruction and restoration of the iliac and caval segments
- However before proceeding it would be prudent to know about the patients neurological prognostication

US Abdomen, Testes





Outcome

- Neurological investigations performed confirmed that patient had a poor prognosis and was unlikely to have a meaningful neurological recovery even if the underlying pathology was treated.
- A family meeting was held and grim prognosis explained to the family.
- Active treatment was withdrawn 4 days after admission.
- The patient died on day 8.

Phlegmasia Cerulea Dolens

- Complication of deep vein thrombosis
- Characterised by venous gangrene, compartment syndrome and shock.
- Associated with high mortality
- Diagnosis can be done by CT venography, duplex ultrasonography and MRI.
- Treatment involves anticoagulation, catheter directed thrombolysis, venous thrombectomy, IVC filter.

Nonseminomatous Testicular Germ Cell Tumour

- most common malignancies affecting adult men between the ages 15 and 35 years
- cure rate for testicular GCTs is approximately 95 percent
- majority of men with a testicular tumor present with a painless mass
- radical inguinal orchiectomy is used both to provide the histologic diagnosis and for local tumor control
- adjuvant therapy includes chemotherapy with cisplatin-based combinations

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