Phlegmasia caerulea dolens
Diagnostics and management

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7th Munich Vascular Conference 2017
The actual case 
10 days back pain
Increasing swelling of the left leg since yesterday
Since 2 hours increasing pain at the lateral part of the left lower leg
Typical signs of compartment syndrome
I.K., female, 51 J.

Swelling and pain since 24 hours, cyanosis, peroneal nerve paralysis, pulseless, beginning gangrene
Diagnostics
CT-Scan
V cava affected?
Compression?
Atresia?
Diagnostics
CT-Scan
Lung embolism?
Surgical thrombectomy
Shortest way to recanalisation
Phlegmasia coerulea dolens 2000-2016

Patients

n = 17, 9 f, 8 m
13 left, 4 right

Mean age: 56.6 Years (19 – 85 Years)

Lung embolism: n = 8
Cancer: n = 3
PAOD: n = 3
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*Patients*

V. cava involved: \( n = 5 \)
Iliac vein involved: \( n = 17 \)
Femoral vein involved: \( n = 17 \)
Popliteal vein involved: \( n = 14 \)
Lower leg veins involved: \( n = 12 \)
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treatment

Surgical Thrombectomy: \( n = 17 \)

- Adjuvant Fibrinolysis: \( n = 2 \)
- Adjuvant Stentling: \( n = 13 \)
- Adjuvant AV-Fistula: \( n = 14 \)
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*results*

Complete recanalisation:  n = 14
Partial recanalisation:  n = 3
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outcome

Mortality: \( n = 1 \) (cardial decompensation)
Major amputation: \( n = 0 \)
Amputation of the forefoot: \( n = 1 \)
Persistant peroneal nerve paralysis: \( n = 1 \)
Conclusions

• Main symptoms of PCD are cyanosis, pain and swelling
• The development of a compartment syndrome requires immediate intervention
• Treatment of choice is the surgical thrombectomy
The actual case
• Phlegmasia coerulea dolens

Symptoms
• Pain, swelling, cyanosis

Pathophysiology:
• Complete obstruction of the venous outflow
• Interstitial edema, Increase of tissue pressure > 40 mm Hg
• Impairment of the arterial perfusion, venous gangrene
• Fulminant course with high lethality

Diagnostics:
• Clinical examination
• Duplex ultrasound
• Abdominal/thoracical CT-Scan

Therapy:
• Anticoagulation
• Shocktreatment
• Recanalisation
• Fasciotomy?