SELECTIVE EMBOLIZATION AS MANAGEMENT OF POST OPERATIVE MASSIVE BLEEDING AFTER SURGERY OF LUMBAR STENOSIS
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CLINICAL CASE

• 85 year-old woman
• Symptomatic degenerative lumbar spinal stenosis
• Progressive neurological impairment, wheel chair dependence
• Chronic low back pain
MRI Findings
Surgery

• Was operated on by means of posterior L3-L5 laminectomy
• Posterolateral L3-S1 fusion with pedicle screws.
• During the surgery no extra bleeding was observed.
Post Operative X Rays
Post op initial evolution

- During the first post op hour the patient presented hypovolemic shock.
  - B.P 80/40 mmHg
  - Pulse 120/min
  - Hto. 17%
  - Drains 100 cc.
Initial management

- Resuscitation maneuvers.
- Fluid administration
- Oxygen
- NO RECOVERY OF THE SHOCK
We assume the patient is bleeding
What should we do?

1. Immediate surgical exploration of the wound
2. Ultrasound
3. CT-Scan Angiography
4. Interventional Angiography
5. Other
We assume the patient is bleeding
What should we do?

1. Immediate surgical exploration of the wound
   - 16%
2. Ultrasound
   - 31%
3. CT-Scan Angiography
   - 34%
4. Interventional Angiography
   - 21%
5. Other
   - 5%
Ultra sound was performed

- Because is available in the recovery room
- Retroperitoneal liquid growing mass
What should we do?

1. Surgical exploration of the wound and direct haemostasis
2. Medical management
3. Interventional Angiography
4. Other
What should we do?

1. Surgical exploration of the wound and direct haemostasis 14%
2. Medical management 4%
3. Interventional Angiography 43%
4. Other 39%
Angiography was performed
Angiography

1. Active bleeding of the left L4 segmental artery
Which should be the possible cause of the bleeding?

1. Surgical extensive posterolateral muscular dissection
2. Accidental artery damage due to intraop penetrating instrument
3. Spontaneous bleeding
4. Other
Which should be the possible cause of the bleeding?

1. Surgical extensive posterolateral muscular dissection 9%
2. Accidental artery damage due to intraop penetrating instrument 83%
3. Spontaneous bleeding 3%
4. Other 7%
Angiography

- Embolization was performed with immediate recovery of normal blood pressure
Mid Term Evolution

• The patient presented an abdominal compartmental syndrome secondary to the retroperitoneal hematoma, needing a decompressive laparotomy, and later on surgical abdominal debridement because of hematoma infection.

• The patient also presented a Pulmonary Embolism treated with anticoagulant therapy and with a cava vein filter.
Final Evolution

• Finally the patient did well and got out of hospital 2 month after with resolution of the abdominal complications

• The patient did also well of the lumbar spinal stenosis symptoms