Why I Stopped Doing Laparoscopic Aortic Surgery (after performing almost 160 Cases...)

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Disclosures

- I have no financial disclosures to declare

To perform the same operations than with open surgery, with a less invasive approach:
  - Reduced postoperative pain
  - Early rehabilitation
  - Reduced risk of abdominal dehiscence

Why did I start laparoscopic vascular surgery?

On the basis of expected same long-term results

1- Aortoiliac occlusive disease
   - Not calcified
   - Iliac disease > aortic disease
   - First abdominal approach
   - Infrarenal clamping

For which patients?

2- Splenic artery aneurysms

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1- Aortoiliac occlusive disease
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2- Splenic artery aneurysms

3- AAA
- Aortic TE
- Aortic occlusion
- Scarred abdomen
- Infra-renal then suprarenal clamping

For which patients?

Transperitoneal retrorenal
Transperitoneal retrocolic

Laparoscopic approaches of the abdominal aorta

Patient #2

Patient #22

Patient #23

Less pain and early rehabilitation
Early return to diet
Early discharge from hospital
Satisfactory immediate anatomic results...

Visible satisfactions and lessons learned / almost 160 pts..
Main early issues...

- Postoperative graft limb occlusion
- Longer procedure time / open surgery?
- Blind left prosthetic branch?
- Insufficient local heparinization?
- Error in graft tunneling?
- Postoperative embolism through native arteries?
- Blood loss?
- Postoperative thrombopenia?
- Final body temperature?

Emergent or delayed conversions to open surgery
- Related to aortic exposure
- Morbid obesity
- Splenic injury
- Intestinal injury
- Aortic injury

Emergent or delayed conversions to open surgery related to:
- Aortic exposure
- Morbid obesity
- Splenic injury
- Intestinal injury
- Aortic injury

Although I was initially truly enthousiastic...

- Postoperative results were encouraging, even during the learning curve period.
- Complications specifically related to the technique were quite solved with growing experience.
- We initially considered totally laparoscopic approach of abdominal aortic diseases (and splenic artery aneurysms) as a safe and efficient alternative to open surgery but...

Late graft limb occlusion: almost 10%!

Late graft limb occlusion: proximal kink of the graft

Late graft limb occlusion: hybrid treatment
• Early postoperative graft limb occlusion
• Uncertainties regarding long-term results: almost 10% of late graft limb occlusion / AUOD
• AAA repair limited to aorto-aortic grafts
• Time consuming procedure, compared to open repair
• Evolving experience with endovascular procedures, both for treating AUOD or AAAs

I stopped!

Although I was initially truly enthusiastic...