



# *LAPAROSCOPIC AORTIC SURGERY*

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## INTRODUCTION (I)

- *Compared with open surgery, laparoscopy reduce operative trauma*
  - postoperative pain*
  - postoperative ileus*
  - hospital stay*
  - time of recovery*
- *Dion et al. performed the first laparoscopy-assisted aortobifemoral bypass in 1993 and the first totally laparoscopic two years later.*



## INTRODUCTION (II)

➤ *Indications :*

*aortoiliac occlusive disease (TASC C or D)  
abdominal aortic aneurysm (>50-55 mm)*

➤ *Contra-indications :*

*hostile abdomen  
severe aortic calcifications  
severe occlusive lesions of the visceral arteries  
high-risk patients  
emergent procedure  
suprarenal artery aortic clamping  
retroperitoneal venous anomalies  
obesity*





## *METHODS (I)*

➤ *Several laparoscopic vascular techniques have been described :*

- 1. laparoscopy-assisted procedure*
- 2. hand-assisted laparoscopic procedure*
- 3. totally laparoscopic procedures*



## METHODS (II)

➤ *Totally laparoscopic techniques :*

*Retroperitoneal*

- 1. « Apron »*
- 2. retroperitoneoscopic*

*Transperitoneal*

- 1. intestinal retractor*
- 2. left retrocolic*
- 3. left retrorenal*

➤ *Coggia et al. reported the largest series (93 cases) of laparoscopic aortobifemoral bypass in 2004.*



## *METHODS (III)*

- *The technique used in Liège is the totally laparoscopic transperitoneal left retrocolic approach described by Coggia et al.*
- *Steps of the procedure :*







## RESULTS

- *Mean operative duration : 240 min*
- *Mean aortic clamping duration : 60 min*
- *Conversion rate : 2 to 10%*
- *Oral feeding : 2th postoperative day*
- *Mean hospital stay : 4 to 7 days*
- *Morbidity 13 to 24%*
- *Mortality 1 to 4%*





## CONCLUSIONS (I)

- *Although there is significant learning curve, laparoscopic aortic procedures are feasible and safe.*
- *Laparoscopic aortic surgery is performed with the advantages of minimally invasive techniques.*



## CONCLUSIONS (II)

- *Moreover, less incisional hernias and less bowel obstruction are expected during follow-up.*
- *The exact role of laparoscopy compared to endoluminal and open aortic repair remains to be determined.*