

Non-vascular complications of abdominal aortic aneurysm surgery

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Introduction

- **Improved peri-operative management**
- **15 – 30% some form of complications**
- **Prevention and management will improve outcome**
- **Non-vascular complications**

Complications

- **Abdominal complications**
 - **Ileus**
 - **Chyloperitoneum**
 - **Incisional hernia**
 - **Duodenal obstruction**
 - **Abdominal compartment syndrome**
- **Cardiac complications**
- **Renal complications**
- **Pulmonary complications**
- **Sexual dysfunction**

Abdominal complications

ileus

- **Majority have bowel dysfunction**
- **10% develop prolonged ileus**
- **Due to base of mesentery dissection**
- **Cautious when introducing feeds**
- **Prolonged ileus: sit it out**

Abdominal complications

chyloperitoneum

- **Very rare**
- **Mortality rate of 11 – 18%**
 - **Sepsis**
 - **PE**
 - **Malnutrition**
- **Early diagnosis important**

Abdominal complications

chyloperitoneum

- **Diuretics**
- **TPN**
- **Low-fat diet containing medium chain TG molecules**
- **Surgery**

Abdominal complications

duodenal obstruction

- **Very rare**
- **Usually presents 2 weeks post op**
- **Due to haematoma, seroma, superior mesenteric artery syndrome, adhesive band**
- **> 80% improve with conservative Mx**

Abdominal complications

incisional hernia

- **Very rare**
- **Aneurysm > occlusive disease**
- **Reduced tissue integrity?**

Abdominal complications

abdominal compartment syndrome

- **Abdominal pressure >20mmHg with organ dysfunction**
- **10 – 55% in ruptured aneurysm**
- **Measured through**
 - **Urinary bladder pressure**
 - **Gastric pressure**
 - **Inferior vena cava pressure**

Abdominal complications

abdominal compartment syndrome

- **Decompression at $>20\text{mmHg}$: 71% survival rate**
- **Temporal closure with mesh or vacuum assisted closure**
- **Mortality rate 56% vs 9% for mesh and primary closure respectively**
- **But if mesh closure at initial operation mortality was lower 51% vs 70%**
- **These patients are less likely to develop multi organ failure 11% vs 70%**

Abdominal complications

abdominal compartment syndrome

- **Haemoglobin of less than 10 g**
- **Pre-operative cardiac arrest**
- **Systolic blood pressure of <90 mm Hg for more than 18 min**
- **More than 3.5L of fluid resuscitation per hour at the operation**
- **Temperature less than 33C**
- **Base deficit of greater than 13**

Pulmonary complications

- **Major cause of morbidity and mortality**
- **Incidence: \pm 10%**
- **Atelectasis, infection, pulmonary oedema and ARDS**
- **Factors: CPD, smoking, obesity and infection**
- **Pulmonary function test**

Pulmonary complications

- **Stop smoking**
- **Chest physiotherapy**
- **± Bronchodilators**
- **Adequate post op analgesics**
- **Early mobilization**

Impaired sexual function

- **Impotence or retrograde ejaculation**
- **Multiple factors responsible**
- **True incidence unknown**
- **Impotence <10% but increases with time**

Impaired sexual function

- **Dissection along left side of aorta and proximal common iliac artery**
- **Ligation of internal iliac artery**

Renal failure

- **Incidence: 1 – 6%**
- **Renal insufficiency best predictor**

Renal failure

- **Adequate fluid**
- **Manitol**
- **Prevent embolization**

Cardiac complications

- **± 10% of patients**
- **Cardiac failure cause mortality in 58%**
- **Cardiac assessment**

- **Thank you**