

ICCU Management of Emergency Aortic Aneurysm Patients

Introduction

Emergency AAA patients have a high mortality and morbidity following surgery. Some of the complications may be reduced or avoided by thinking about early, often simple interventions.

Renal protection during CT scans – consider NAC for patients with pre-existing renal impairment (Creatinine > 170micmol). NAC dose = 150mg/kg (1.2g for a typical patient) in 500ml N/Saline run over 30 mins pre CT scan, and 50mg/kg run over 1 hour post CT. See Guideline 5.7 for details

Nasojejunal tube. Many AAA patients have delayed gut function (often duodenal ileus) and simple NG feeding is frequently unsuccessful, requiring endoscopic placement of post-pyloric feeding tubes. Ask the surgeons to place a post-pyloric **(NJ) feeding tube during the initial surgery. This is in addition to the usual NG tube**

Vascular access. Most of the lines inserted during the initial surgery should not be regarded as sterile. Central lines especially should be removed and replaced at 24hours unless the patient is significantly improved (and close to having central access definitively removed)

Gut Decontamination. The incidence of ventilator associated pneumonia is significant in these patients. All emergency AAA patients should have Selective Decontamination of the Digestive Tract (SDD) started as soon as possible after initial surgery. See Guideline 7.6 for details

Intraabdominal pressure measurement. Intra-abdominal hypertension and Abdominal Compartment Syndrome (ACS) are common. Abdominal examination alone is an unreliable way to diagnose post operative problems, so all emergency AAA patients should have IAP measurements started on return to ICCU. A persistently raised IAP, especially with organ dysfunction should prompt surgical review and consideration of laparostomy. See Guideline 2.8 for details

Examination It is useful to examine the patient regularly (particularly over the first 12 hours after return from theatre). Significant bleeding may take a while to become evident and it's helpful to compare examinations from an earlier time. Look out for peripheral limb ischaemia as some of these patients require embolectomies. Ischaemic colitis is another major concern. Bloody diarrhoea and/ or a persistently raised lactate are indicators of this. Pancreatitis may occur so check serum amylase if concerned.

Cardiac investigations. Even uncomplicated AAA repair is associated with significant cardiovascular stress (c12% of patients have raised TNI after elective vascular surgery). Troponin and serial ECGs should be recorded for all emergency AAA patients.

Coagulation Ongoing bleeding can be a life-threatening problem. Correct coagulopathies aggressively. Do not let hours go by before obtaining lab results/ correcting abnormalities. As a guide, optimise clotting to achieve platelets > 90, PT < 16, Fibrinogen > 1.0 and APTT < 45. Also correct ionised calcium and temperature as soon as possible.