Endocrine and metabolic disorders

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Malnutrition Body mass index (BMI) is weight in kilograms divided by height in metres squared. A BMI of less than 18.5 indicates nutritional impairment and a BMI below 15 is associated with Thomas Addison , 1795–1860, physician, Guy’s Hospital, London, UK, described the e ff ects of disease of the suprarenal capsules in 1849. mum of 2 weeks before surgery is required to have any impact on subsequent morbidity . If a patient is unlikely to be able to ea t for a significant period postoperatively this can be anticipated and alternative nutritional support must be planned. Obesity Morbid obesity can be defined as BMI of more than 35 (other definitions exist) and is associated with an increased risk of postoperative complications. Patients should be made aware of the risks involved and advised on healthy eating and taking regular exercise. If possible, surgery should be delayed until the patient is more active and has lost weight. If this fails, - prophylactic measures need to be taken, such as preventative measures for acid aspiration and deep vein thrombosis (DVT). OSA that is unrecognised has been shown to be associated with a higher incidence of MACE in comorbid patient groups. Identification of those at higher risk by using a clinical scor - - ing system, such as the perioperative sleep apnoea prediction (P-SAP) scor e, can rationalise referral for formal sleep apnoea studies. Urgency of surgery may preclude full investigation and treatment preoperatively . Patients with severe OSA require 6 /uni00A0 weeks of nocturnal continuous positive airway pressure (CPAP) use preoperatively to reduce their risks. Associated risks need to be explained prior to the surgery and an appropriate anaesthetic technique planned with postoperative monitoring. Diabetes mellitus Diabetes and associated cardiovascular and renal complica - tions should be controlled to as near a normal level as possible before embarking on elective surgery . Any history of hyper- and hypoglycaemic episodes and hospital admissions should be noted. For elective surgery , an HbA1c of <69 /uni00A0 mmol/mol is recommended. Lipid-lowering medication should be started in patients who are in a high-risk group for cardiovascular - complications of diabetes. - Patients with diabetes should be first on the operating lobin list and their antidiabetic medication adjusted as per local or national guidance, as they will miss a meal preoperatively . Although tight control of blood sugar is not needed, the patient’s blood sugar le vels should be checked hourly . Variable rate intravenous insulin infusion (VRIII) should be started for patients with diabetes on insulin undergoing major surgery or if blood sugar is di ffi cult to control for other reasons. Adrenocortical suppression Patients receiving oral adrenocortical steroids should be asked about the dose and duration of the medication to determine the need for supplementation with extra doses of steroids periop - eratively so as to avoid an Addisonian crisis. A patient taking >5 /uni00A0 mg prednisolone equivalent within a month of surgery will require supplementation at induction and postoperatively . Neuroendocrine tumours, including phaeochromocytoma, carcinoid, gastrinoma, VIPomas and insulinoma, have specific treatments that must be started preoperatively in liaison with specialist endocrinology

physicians. Anaemia and blood transfusion Patients found to be newly anaemic (haemoglobin <130 /uni00A0 g/L), with an expected operative blood loss of >500 /uni00A0 mL, should be investigated for the cause of their anaemia. Any vitamin or iron deficiency should be corrected before proceeding for elective surgery . Chronic anaemia is well tolerated in the perioperative period where <500 /uni00A0 mL blood loss is expected, but where possible should be corrected. Preoperative transfusion may be considered rarely for elective patients when guided by a haematologist. Local policy should agree which procedures require a preoperative ‘group and save’ or cross-matched blood sample. Some patients may refuse blood transfusion, for example a Jehovah’s Witness. In such a case, during the consent process discussion should include which blood product and/or system (e.g. cell salvage, reinfusion from drains) is acceptable. The discussion should extend to other areas, for example whether refusal of transfusion would apply in life-threatening situations. As in all consent processes, the discussion and out come should be clearly documented. Thrombophilia Factor V Leiden and deficiencies in antithrombin III and proteins C and S increase the patient’s thrombosis risk. The patient will need special discussion with a haematologist to tailor their venous thromboembolism prophylaxis. For all other patients a DVT risk assessment should be made preoperatively and precautions planned as per local or national guidance. Risk factors are included in Table 21.4 . The progesterone-only contraceptive pill should be contin ued; however, the risks of continuing the combined pill (slight increased risk of significant thr ombosis) should be weighed against the risks of an unplanned pregnancy . Consider stop ping oestrogen-containing oral contraceptives or hormone replacement therapy 4 weeks before surgery (NICE guidance; see Further reading). Bleeding disorders Bleeding disorders such as haemophilia, von Willebrand disease or thrombocytopenia are best discussed with haema tology preoperatively . Endocrine and metabolic disorders

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