Chronic adrenal insufficiency

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Patients with chronic adrenal insu ffi ciency may also be di ffi cult to diagnose because symptoms appear insidiously over time. They may experience anorexia, weakness and nausea and, in the case of primary adrenal insu ffi ciency , hyperpigmentation of the skin and oral mucosa because of the loss of negative feedback on secretion of ACTH and POMC. Hypotension, hyponatraemia, hyperkalaemia and hypoglycaemia are commonly observed due to the deficiency of mineralocorti coids. Diagnosis The diagnosis of adrenal insu ffi ciency relies on demonstrating cortisol deficiency and then determining whether this is ACTH dependent or independent by performing an ACTH stimula tion test (synacthen test). Blood is drawn for basal ACTH and cortisol. If both are low , the diagnosis is secondary or tertiary adrenal insu ffi ciency . If the ACTH is high and the cortisol is low , the cause is adrenal disease (primary adrenal insu ffi ciency). Synacthen testing is used because it is the quickest way to deter mine if there is any adrenal function; adrenal function is present for some after the onset of pituitary or hypothalamic disease, whereas there will be no response w hen the adrenal glands are diseased. Treatment If acute adrenal insu ffi ciency is suspected, treatment must be commenced immediately while the results of confirmatory testing are awaited. Blood should be drawn for plasma ACTH, serum cortisol, plasma renin activity and aldosterone and therapy with intravenous saline and hydrocortisone should be commenced. A typical regime would consist of a 100-mg bolus of intravenous hydrocortisone followed by 50 /uni00A0 mg intra venous hydrocortisone 6-hourly and 2–3 litres of 0.9% saline in 6 hours, with careful cardiovascular monitoring to prevent fluid overload. Concomitant infections, which are frequently pr esent, should also be treated. Fluids and steroids are then tapered as the patient stabilises. therapy with daily oral hydrocortisone (15–25 /uni00A0 mg orally in two or three divided doses) and fludrocortisone (0.05–0.2 /uni00A0 mg each morning orally). Patients must be advised about the need to take lifelong glucocorticoid and mineralocorticoid replace - ment therapy . To prevent an Addisonian crisis, patients must be aware of the need to double the dose in cases of illness or stress (‘sickness day rules’). If patients with adrenal insuf - ficiency are scheduled for surgery , appr opriate steroid cover must be administered.

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