Addisonian Crisis

- Acute adrenocortical insuffificiency is rare and easily missed.

- By far, the most common cause is sudden withdrawal of chronic steroid therapy (deliberately or inadvertently).

- An Addisonian crisis may also be precipitated in these patients by intercurrent injury, infection, or stress—high steroid requirement.

Causes

- autoimmune and may be associated with Graves' disease, Hashimoto's thyroiditis, type 1 diabetes mellitus, pernicious anaemia, hypoparathyroidism, and ovarian failure.
- TB
- fungal infections
- metastatic disease

Causes

- congenital adrenal hyperplasia
- drugs (eg metyrapone or cytotoxic agents)
- haemorrhage into the adrenal glands occurring as a complication of anticoagulation, or meningococcal septicaemia (Waterhouse–Friderichsen syndrome).

Precipitating factors

- Infection
- Trauma
- Myocardial infarction
- cerebral infarction
- Asthma
- Hypothermia
- alcohol,
- Pregnancy
- exogenous steroid withdrawal or reduction.

Clinical features

Addison's disease frequently has an insidious onset with weakness, apathy, anorexia, weight loss, abdominal pain (which may be severe enough to mimic an acute abdomen), and oligomenorrhoea.

Clinical features

In crisis, the main features may be shock (tachycardia, peripheral vasoconstriction, severe postural hypotension occasionally with syncope, oliguria, profound muscle weakness, confusion, altered consciousness leading to coma) and hypoglycaemia.

Chronic features of Addison's disease are: areas of vitiligo and hyperpigmentation in the palmar creases, buccal mucosa, areolae, scars, and axillae.

Investigations

- Obtain IV access, and send blood to check for hyperkalaemia,hyponatraemia, hypoglycaemia, uraemia, mild acidosis, hypercalcaemia, and eosinophilia which may be present.

Investigations

- Also, take blood for cortisol (10mL in a heparinized tube) ACTH if possible—contact the biochemistry lab to warn them that these tests will be required.

- Take blood cultures, urine cultures, and sputum for culture and sensitivity.

Management

- If an Addisonian crisis is suspected, take appropriate blood samples, but start treatment without waiting for results.

- If features of haemodynamic compromise are present, commence volume replacement with IV 0.9% saline if shocked.

Management

- Give hydrocortisone sodium succinate 100mg IV stat.
- Treat hypoglycaemia with 50mL of 10% glucose IV (repeated if necessary).
- If infection is suspected as a precipitating cause, consider giving broad spectrum antibiotics.
- Refer for admission.