

Revision

Glucocorticoids (extra info)

- ★ this file contains some extra information that is not mentioned in our slides and we thought it is important for our future doctors to know :)
- ★ These info is taken from 433 teamwork

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Indications:

1-Hormonal Replacement Therapy

1-Adrenal Insufficiency

A.Addisonian Crisis -acute- (shock):

- 1-Parental Cortisol (hydrocortisone) 100 mg IV / every 6-8 hrs until patient is stable. (Dose gradually reduced).
- 2-Fluids and electrolytes should be corrected.
- 3-Treatment of precipitating factors.

B.Addison's Disease (chronic):

- 1-Cortisol (orally) + fludrocortisone (orally) And Dexamethasone could be given on prolonged use.
- 2-Doses must be increased in stress to prevent development of Addisonian crisis
- 3- Doses should follow circadian rhythm

2-Cushing Syndrome

- 1-in Diagnoses Dexamethasone suppression test.
- 2-in Treatment Cortisol Temporally administered AFTER surgical removal of pituitary / adrenal / corticosteroid secreting tumors.

Indications: con't

2-Anti-inflammatory & Immunosuppressive

- 1-Severe allergic reactions e.g. serum sickness, angioneurotic edema
- 2-Diseases of allergic origin bronchial asthma, rhinitis, conjunctivitis, eczema & many other atopic & proliferative skin diseases
- 3-Autoimmune disorders; rheumatoid arthritis, inflammatory bowel disease systemic lupus erythematosus, nephrotic syndrome
- 4-Organ transplantation; kidney, cardiac, bone marrow (rejection)
- 5-Acute gout (resistant) to other drugs
- 6-Blood dyscrasias hemolytic anemia, thrombocytopenic purpura, agranulocytosis

We use :

- 1-Prednisolone
- 2-Dexamethasone
- 3-Betamethasone

3--Others

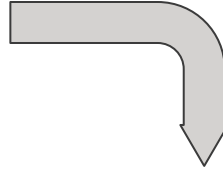
- 1-Raised intracranial pressure
- 2-In neoplastic diseases With cytotoxic drugs as in Hodgkin's disease, acute lymphocytic leukemia / 1ry or 2ndry neoplasms in the brain & postoperative to brain surgery edema / In antiemetic regimens prevent / cure emesis of chemotherapy
- 3-Suppress excess ACTH production

We use :

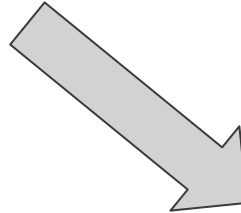
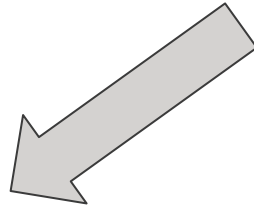
- 1-Dexamethasone
- 2-Betamethasone

If water retention is undesirable

How can you treat iatrogenic cushing Syndrome ?



1-stopping the drug



If you can stop the drug:
-slow withdraw to allow body to slowly resume its normal balance of ACTH & cortisol

If you can not stop the drug:
treat each symptom separately:

- 1-Hyperglycemia > Anti-Diabetic.
- 2-Osteoporosis > Bisphosphonates.
- 3-Peptic Ulcer > H2 Blockers or PPI.

ADRs of corticosteroid :



Systemic ADRs

- Growth retardation and short stature.
- Fat redistribution & abnormal deposition.
- Hypertension, oedema, Na retention, Hypokalaemia .
- Osteoporosis
- Menstrual irregularities.
- Peptic ulcer specially if with NSAIDs.
- **Avascular necrosis of head of femur.**

Local toxicity

- Skin→ infection, atrophy, bruising.
- Eye→ viral infection, cataract, glaucoma.
- Inhalation fungal infection, hoarseness.
- Intrarticular infection, necrosis.

Percaution

- ★ Patients receiving GCs and is subjected to stress double the dose, because it may lead to addisonian crisis .
- ★ In children receiving GCs→ stop live attenuated vaccines, due to low immunity.
- ★ In pregnant women; better avoid fluorinated GCs (long acting GCs) → teratogenicity.
- ★ Neo-born to mothers taking high dose GCs→ -ve HPA axis→ give the neo-born low dose of GCs the reduce it gradually to avoid adrenocortical

Mineralocorticoids

Drugs used:

Aldosterone , Deoxycorticosterone (DOCA) , Fludrocortisone

Corticosteroid Antagonist

Metotane

MOA:

inhibit β -hydroxylase → inhibit corticosteroid synthesis

Indication:

Cushing syndrome to reduce symptom before surgery

★ It is safe in pregnancy