



Misused Glucocorticoids Transport Patients to the Necropsy Table

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Abstract

Glucocorticoids (GC) are hormones of the corticosteroid family, which participate in the regulation of carbohydrate metabolism by promoting gluconeogenesis and glycogenolysis; They are anti-inflammatory, anti-allergic and immunosuppressive drugs; Its regulatory action also extends to the intermediate metabolism of fats and proteins; They are often used in medicine to treat multiple pathologies, although their use is often inappropriate; They can have important short- and long-term side effects, so their use should be limited to those pathologies in which the benefits outweigh the risks. Today they represent a widely used and, at the same time, very feared pharmacological group.

Keywords: Misused Glucocorticoids; Transport; Patients; Necropsy Table

Introduction

Diseases in which these drugs should be used

- Immune-mediated meningoencephalomyelitis or meningitis of unknown origin (granulomatous meningoencephalomyelitis, necrotizing meningoencephalitis, meningitis-arteritis, eosinophilic meningoencephalitis).
- Congenital hydrocephalus,
- Neoplasms of the nervous system,
- Chronic compressive spinal disorders.

Diseases in which these drugs should not be used

- Acute spinal cord trauma,
- Craniocerebral trauma,
- Infectious meningoencephalomyelitis,
- Cerebrovascular accidents.

Pharmacological actions to always keep in mind

They promote the spread of infections, therefore they should be reserved for those cases in which other drugs are provenly ineffective or contraindicated; They are protectors from the conse-

quences of an indiscriminate inflammatory response on the body; they suppress somatotropin secretion through corticotropin-releasing hormone (CRH) which stimulates pituitary somatostatin secretion; They inhibit, by similar mechanisms, the hypothalamic-pituitary-gonadal and hypothalamic-pituitary-thyroid axes; In relation to protein-glucid metabolism, these drugs inhibit peripheral glucose utilization and stimulate gluconeogenesis; Regarding lipid metabolism, GCs facilitate the lipolytic effect of catecholamines, with the consequent increase in free fatty acids in plasma; Due to the hydroelectrolyte metabolism, GCs can exhibit an aldosterone-like effect with loss of potassium and retention of sodium and water, a situation that increases the elimination of hydrogen, thus high doses can trigger hypokalemic alkalosis; cause characteristic changes in the blood count, in the red series, if the treatments are prolonged, hematocrit and hemoglobinemia increase, in the white series, neutrophilia would be produced by increased release from the bone marrow and decreased tissue output due to lower expression of adhesion molecules and eosinopenia due to marrow retention, and lymphopenia and monocytopenia due to redistribution and apoptosis; In the bone system, GCs are hypocalcemic, because

they decrease intestinal absorption and renal reabsorption of calcium, antagonizing the effects of calcitriol; Regarding their effects on the CNS, these show great interindividual variability, they are generally stimulants, causing insomnia or excitement, on the gastrointestinal system, they inhibit the synthesis of prostaglandins, in addition, they attenuate the production of gastric mucus and reduce the healing capacity; finally the GCs, They affect almost the entire organism, which is why adverse reactions, especially after systemic therapy, are multiple and varied, from those that are not serious but unpleasant to others that endanger the lives of patients: hyperglobulia, glucose intolerance or hyperglycemia and hypercholesterolemia, tendency to opportunistic and viral infections, osteoporosis or osteonecrosis, loss of muscle mass whose extreme degree is steroid myopathy, depression, dysphoria, insomnia, various digestive disorders, edema due to sodium and water retention (with risk of hypertension and/or insufficiency cardiac in predisposed patients) and skin disorders. These substances can also cause hypokalemia, reproductive disorders (amenorrhea, infertility), cataracts, exophthalmos, increased intraocular pressure and benign intracranial hypertension [1].

Conclusion

These drugs promote gluconeogenesis and glycogenolysis; They are anti-inflammatory, anti-allergic and immunosuppressive; they regulate the action of fats and proteins; its use is often inappropriate; They may present significant side effects, their use should be limited to those pathologies in which the benefits outweigh the risks.

Conflict of Interest

There are no conflicts of interest or finances.

Bibliography

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