H02 - Corticosteroids for systemic use

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GLUCOCORTICOID INDUCED HYPERGLYCAEMIA IN NON - DIABETIC PATIENTS IN EMERGENCY AN DEPARTMENT

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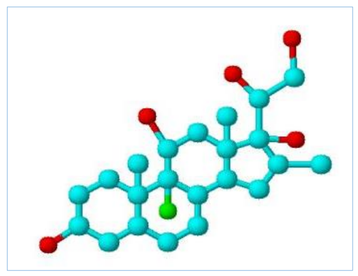
BACKGROUND AND IMPORTANCE

Glucocorticoid-Induced Hyperglycemia (GIH) is a common and underdiagnosed situation in hospital Emergency Department (ED) that leads to an increased hospital stay and a worsening prognosis.



¿underdiagnosed?

AIM AND OBJECTIVES

To determine the cumulative incidence of the development of GIH in non-diabetic patients treated with systemic glucocorticoids in the ED and to study the associated risk factors.

To determine the mean time to develop GIH.

To determine compliance with general recommendations of Scientific Societies for its therapeutic management.

MATERIALS AND METHODS

Study
Prospective
Descriptive

3 months

Non-diabetic patients who started systemic glucocorticoids during 72h in ED.

Hyperglycemia capillary glucose
preprandial ≥140 mg/dL
postprandial 180 mg/dL

- Age
- Obesity
- Family history DM
- Type of glucocorticoid
- Accumulated dose equivalent to hydrocortisone received

Recommendations of Scientific Societies:
Monitoring of capillary blood glucose for 72h or less if patient was discharged.
In cases of patients who initially were not glucose monitoring, it was indicated by pharmacist.

Chi-squared test or Fisher's exact test for categorical variables. Mann-Whitney U-test for quantitative variables. Kaplan-Meier test for Time from SG initiation to GIH . SPSS® V15.0 program was used to analyses the data.

RESULTS

N= 32 patients

Sex	53.13 % male
Age	72±17.6 years
Obese	28.12 %
Without family history of DM	96.87 %
Treated with intermediate-acting GC	90.7 %
Mean accumulated dose hydrocortisone	468.13±276 mg

GIH cumulative incidence was 53.12% in 72hours

None risk factor showed statistically significant differences related to the development of GIH

Mean time to develop GIH of 46.15 hours
(95%CI,36.1-56.1)

Older patients had higher risk of developing GIH before than younger patients (HR=1.05;95%CI,1-1.1;p=0.047)

72 h

Regarding compliance recommendations: **Only 21.87% patients were initially glucose monitoring.**

CONCLUSIONS AND RELEVANCE

- ✓ Data obtained showed a high GIH cumulative incidence (53.12%) and none risk factor was associated, probably because of the size of the sample.
- ✓ The risk of developing early GIH increased with age.
- ✓ The low rate of compliance with the recommendations confirms the importance of implementing an easily applicable protocol that minimizes this situation, especially in older patients.

References:
Recomendaciones de manejo de la diabetes, de sus complicaciones metabólicas agudas y de la hiperglucemia relacionada con corticoides en los servicios de urgencias. Esther Álvarez-Rodríguez1,2, María Agud Fernández2,3, Zaida Caurel Sastre2,4, Isabel Gallego Mínguez2,5, César Carballo Cardona2,5, Artur Juan Arribas2,6, Raquel Piñero Panadero2,7, Olga Rubio Casas2,7, Daniel Sáenz Abad2,8, Rafael Cuervo Pinto2

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Conflict of interest: nothing to disclose