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

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.

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

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

GIH cumulative incidence was 53.12% in 72 hours

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)

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 Alvarez-Rodriguez1,2, María Agud Fernández2,3, Zoila Cauvel Sastre3,4, Isabel Gallego Mínguez3,5, César Carballeira Cardona2,5, Arthur Juan Arribas2,6, Raquel Piñero Panadero2,7, Olga Rubio Casas2,7, Daniel Saenz Abad2,8, Rafael Cuevros Pinto2

Conflict of interest: nothing to disclose

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