Abstract:

Hyperglycemia is a common finding in emergency department (ED) patients, but its general relevance for the further clinical course has not been determined as yet. To examine the prevalence of hyperglycemia, its consequence on in-hospital outcome in emergency patients as well as ED hyperglycemia management. Blood glucose levels (BGL) were routinely measured in every hospitalized ED patient. Hyperglycemia was defined as BGL of at least 140 mg/dl at arrival to the ED. According to the recommendations of the American Diabetes Association, patients were divided into three groups: normoglycemia: 60-140 mg/dl, hyperglycemia with a need for follow-up: 140-179 mg/dl, and hyperglycemia with the need for intervention (HGI): at least 180 mg/dl.

Multiple regression models adjusted for potential confounders were used to estimate the association between BGL elevation and mortality and length of hospital stay. The prevalence of hyperglycemia was high (n=849, 21%), with 400 patients presenting HGI (47% of patients in the hyperglycemic group). The in-hospital mortality rate was higher in both hyperglycemic groups combined [odds ratio (OR) 1.92; 95% confidence interval (CI): 1.34-2.77], with the highest OR in patients presenting HGI (OR 2.32; 95% CI: 1.43-3.23).

Patients with hyperglycemia showed an increased length of hospital stay...
[estimated mean +1.67 days (95% CI: 1.02-2.33)] as well as an increased risk for ICU admission (OR 1.73; 95% CI: 1.33-2.25). Analysis of ED hyperglycemia management showed low rates of insulin treatment (14% of HGI group) and a lack of hyperglycemia communication in ED-referral letters. ED hyperglycemia was found to be a strong predictor of in-hospital outcome, whereas responding ED management was inadequate. Further prospective studies are needed to determine whether systematic ED hyperglycemia management could improve outcomes.

Zeitschriftentitel / Abkürzung:
Eur J Emerg Med

Jahr:
2015

Band:
22

Heft / Issue:
3

Seiten:
181-7

Sprache:
eng

Volltext / DOI:
http://doi.org/10.1097/MEJ.0000000000000199

Pubmed:

Print-ISSN:
0969-9546

TUM Einrichtung:
Institut für Medizinische Statistik und Epidemiologie

Occurences:
- Einrichtungen > Fakultäten > Fakultät für Medizin > Kliniken und Institute > Institut für Medizinische Statistik und Epidemiologie > 2015

entries: