

# Pengaruh hiperglikemia admisi terhadap kejadian aritmia selama perawatan pasien sindrom koroner akut = The influence of hyperglycemia at admission on in hospital arrhythmia in patients with acute coronary syndrome

Ahmad Fariz Malvi Zamzam Zein, author

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## Abstrak

<b>ABSTRAK</b><br> Latar Belakang: Aritmia selama perawatan merupakan komplikasi yang sering terjadi pada pasien sindrom koroner akut (SKA) sehingga dibutuhkan identifikasi risiko secara dini.

Tujuan: Mengetahui insidens pasien SKA yang mengalami aritmia selama perawatan dan mengetahui pengaruh hiperglikemia admisi terhadap kejadian aritmia selama perawatan pasien SKA.

Metode: Studi kohort retrospektif ini menggunakan rekam medik pasien SKA yang dirawat di ICCU RSPUN dr. Cipto Mangunkusumo dalam periode 1 Januari-31 Desember 2014. Hiperglikemia admisi didefinisikan sebagai kadar gula darah admisi  $>140$  mg/dL. Kejadian aritmia selama perawatan meliputi aritmia atrium, takikardia supraventrikular, blok AV derajat tinggi, dan aritmia ventrikel, yang diidentifikasi dalam tujuh hari pertama perawatan.

Hasil: Terdapat 232 subjek pada penelitian ini. Prevalensi hiperglikemia admisi adalah 50,43%. Insidens pasien SKA yang mengalami aritmia selama perawatan adalah 21,55% (IK 95% 16,26-26,84). Analisis bivariat menunjukkan hiperglikemia admisi terkait dengan peningkatan risiko aritmia selama perawatan (RR 1,747; IK 95% 1,042-2,930). Tidak terdapat hubungan yang bermakna antara jenis SKA, diabetes melitus (DM), obesitas, dan hipertensi dengan kejadian aritmia selama perawatan. Analisis multivariat menunjukkan OR hiperglikemia admisi setelah penyesuaian adalah 2,852 (IK 95% 1,351-6,024), dengan variabel perancu DM.

Simpulan: Insidens pasien SKA yang mengalami aritmia selama perawatan adalah 21,55%. Hiperglikemia admisi dapat meningkatkan risiko kejadian aritmia selama perawatan pasien SKA.<b>ABSTRACT</b><b>Background:</b> The in-hospital arrhythmias complicating acute coronary syndrome (ACS) is a common complication, and its early risk identification is urgently needed.

Aim: to determine the incidence of in-hospital arrhythmia complicating ACS and to determine the influence of HA on in-hospital arrhythmia complicating ACS.

Methods: a retrospective cohort study was conducted using secondary data from medical records of patients with ACS who were admitted to ICCU RSCM between January 1st-Desember 31st, 2014. Hyperglycemia at admission was defined when the blood glucose level at admission was  $>140$  mg/dL. The in-hospital arrhythmias were observed during the first seven days of hospitalization.

Result: there were 232 subjects. The prevalence of HA WAS 50.43%. The incidence of in-hospital arrhythmias was 21.55% (95% CI 16.26-26.84). In bivariate analysis, there was significant association between HA and in-hospital arrhythmia (RR 1.747; 95% CI 1.042-2.930). There were no significant relationship among the type of ACS, diabetes mellitus (DM), obesity, and hypertension, with the influence of HA on in-hospital arrhythmia. In multivariate analysis, the adjusted OR of HA was 2.852 (95% CI 1.351-6.024), and DM was the confounding variable.

Conclusion: In-hospital arrhythmias is a common complication in patients with ACS. Hyperglycemia at admission may increase the risk of in-hospital arrhythmia complicating ACS.  
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