# Pengaruh Hiperglikemia admisi terhadap kesintasan terjadinya Major Adverse Cardiac Events pada pasien Sindrom Koroner Akut selama perawatan di ICCU RSCM = The influence of Hyperglycemia on admission to survival of Major Adverse Cardiac Event Mace in patients with Acute Coronary Syndrome (ACS) hospitalised at Cipto Mangunkusumo Hospital's Intensive Cardiac Care Unit / Dewi Martalena

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Abstrak

ABSTRAK<br>
Latar Belakang: Hiperglikemia admisi sebagai prediktor MACE pada SKA telah banyak diteliti, namun belum ada yang memperhatikan kesintasannya. Indonesia (ICCU RSCM khususnya), belum memiliki data epidemiologis mengenai hiperglikemia admisi pada SKA maupun pengaruhnya terhadap MACE dan kesintasannya. Penelitian ini dilakukan agar menjadi landasan untuk stratifikasi risiko selama perawatan.
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Tujuan: Mengkaji hiperglikemia admisi sebagai prediktor MACE dan mengetahui kesintasan terhadap MACE pada berbagai kelompok hiperglikemia admisi pada SKA selama perawatan.
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Metode: Kohort retrospektif dengan pendekatan analisis kesintasan terhadap 442 pasien SKA yang dirawat di ICCU RSCM Januari 2008-Mei 2012, terbagi 3 kelompok berdasarkan gula darah admisi (GD ≤140mg/dl, 141-200mg/dL, >200mg/dL). Kurva Kaplan Meier digunakan untuk mengetahui kesintasan masing-masing kelompok. Analisis bivariat mengunakan uji log-rank, analisis multivariat menggunakan cox proportional hazard regression. Besarnya hubungan variabel hiperglikemia admisi dengan MACE dinyatakan dengan crude HR dan IK 95% serta adjusted HR dan IK 95% setelah memasukkan variabel perancu.
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Hasil dan pembahasan: 63 (14,25%) pasien mengalami MACE dengan kesintasan rata-rata 6,373 hari; SE 0,076 dan IK 95% 6,225-6,522. Analisis bivariat menunjukkan hubungan bermakna antara hiperglikemia admisi dengan kesintasan MACE (p<0,001). MACE tercepat terjadi berturut-turut pada GD admisi >200mg/dL, 141-200mg/dL, dan ≤140mg/dL dengan rata-rata kejadian secara berturut-turut pada hari perawatan ke-5,989; 6,078; 6,632. Analisis multivariat menunjukkan hiperglikemia admisi merupakan prediktor independen MACE selama perawatan (Adjusted HR 2,422; IK 95% 1,049-5,588 untuk GD admisi 141-200mg/dL dan Adjusted HR 3,598; IK 95% 1,038-12,467 untuk GD admisi >200mg/dL).
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Simpulan: Kesintasan MACE pada pasien SKA selama 7 hari perawatan di ICCU RSCM adalah 85,7%, dan terdapat perbedaan kesintasan antara berbagai kelompok hiperglikemia admisi terhadap terjadinya MACE. Semakin tinggi kadar gula darah, semakin buruk kesintasannya (semakin tinggi risiko dan semakin cepat pula terjadi MACE)
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ABSTRACT<br>
Background: Hyperglycemia on admission as a predictor for MACE in ACS has been studied for several circumstances, but none had seen it’s importance for survival. Cipto Mangunkusumo Hospital’s ICCU, had not have any epidemiological data about hyperglycemia on admission in ACS nor it’s influence to MACE and survival. This study was conducted to provide a platform for risk stratification during hospitalisation
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Aim: To evaluate hyperglycemia on admission as a predictor for MACE and, to describe survival according to hyperglycemia on admission status in patients with ACS.
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Methods: Retrospective cohort design and survival analysis was used to 442 ACS patients hospitalised at Cipto Mangunkusumo hospital’s ICCU between Januari 2008 and May 2012 that divided into 3 groups according to admission BG (≤140 mg/dL, 141-200 mg/dL and >200 mg/dL). Kaplan Meier curve utilised to evaluate the survival of each group. Bivariate analysis was conducted using Log-rank tes. Multivariate analysis was conducted using Cox proportional hazzard regression. The extend of relation between admission hyperglycemia and MACE was expressed with crude HR with 95% CI and adjusted HR with 95% CI after adjusting for confounders.
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Results and discussion: MACE was found to happen to 63 (14.25%) patients with average survival of 6.373 days, SE 0.076 and 95% CI 6.225-6.522. Bivariate analysis found statistically significant relation hyperglycemia on between admission and MACE survival (p<0.001). MACE was significantly earlier in admission BG of >200 mg/dL, 141-200 mg/dL and ≤140 mg/dL respectively, with mean hospitalisation day at 5.989, 6.078 and 6.632 in that order. Multivariate analysis shown that hyperglycemia on admission was an independent predictor for MACE during hospitalisation (Adjusted HR 2.422; 95% CI 1.049-5.588 for BG 141-200 mg/dL and Adjusted HR 3.598; 95% CI 1.038-12.467 for BG >200 mg/dL).
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Conclusion: Survival of MACE in ACS patient during 7 days hospitalisation in ICCU RSCM is 85,7%, and there was a survival difference between different admission hyperglycemia groups. The higher the blood glucose level, signify a worse survival and also faster and higher risk for MACE.