Skor SAFE dan Rerata Doppler E/e’ sebagai prediktor rehospitalisasi jangka pendek pada gagal jantung akut = SAFE score and Doppler Average E/e’ as Short Term predictors of acute heart failure

Sembiring, Theresia Sri Rezeki, author

Abstrak

Latar belakang: Rehospitalisasi 30 hari pada gagal jantung menyebabkan perburukan prognosis dan paling sering terjadi karena kongesti hemodinamik yang ditandai oleh tekanan pengisian ventrikel kiri (left ventricular end diastolic pressure/LVEDP) persisten tinggi. Oleh karena itu, dekongesti komplit harus dipastikan sebelum pasien pulang dari perawatan. Salah satu modalitas yang potensial adalah skor SAFE melalui evaluasi 3 komponen kongesti hemodinamik, yaitu: pompa (ejection fraction/EF), pipa (internal jugular vein collapsibility index/IJVCI dan inferior vena cava/IVC) dan jaringan interstisial (B-lines). Pada studi ini, rerata E/e’ ditambahkan pada skor SAFE dengan pertimbangan nilai prognostik rerata E/e’ dalam memprediksi kejadian rehospitalisasi.
Tujuan: Membandingkan skor SAFE dan skor SAFE+rerata E/e’ dalam memprediksi rehospitalisasi 30 hari terkait gagal jantung akut.
Metode: Dilakukan studi kohort prospektif dengan melibatkan 82 orang pasien gagal jantung akut yang dirawat di RSJPDHK. Analisis bivariat dan multivariat dilakukan untuk membandingkan kemampuan prediksi skor SAFE dan skor SAFE+rerata E/e’ terhadap rehospitalisasi 30 hari terkait gagal jantung akut.
Hasil: Insidensi rehospitalisasi 30 hari terkait gagal jantung akut mencapai 19,5%. Kurva Kaplan-Meier menunjukkan rehospitalisasi lebih rendah pada kondisi euvolemia daripada hipervolemia (p 0,003). Skor SAFE+rerata E/e’ memiliki kemampuan prediksi rehospitalisasi 30 hari yang lebih baik daripada skor SAFE (AUC 0,77 [95% CI: 0,64 – 0,89] vs AUC 0,74 [95% CI: 0,62 – 0,85]).
Kesimpulan: Skor SAFE+rerata E/e’ memiliki kemampuan prediksi rehospitalisasi 30 hari terkait gagal jantung akut yang lebih baik daripada skor SAFE.
.....Background: Short-term-rehospitalization worsens prognosis and frequently occurs due to persistently high LVEDP (hemodynamic congestion) among patients with heart failure (HF). Therefore, it is necessary to ascertain complete decongestion prior to hospital discharge. SAFE score is a potential scoring system to do so because it measures 3 main components of hemodynamic congestion: pump (EF), pipe (IJVCI and IVC) and interstitial tissue (B-lines). In this study, average E/e’ is added to SAFE score considering its clinically significant prognostic value in predicting risk of rehospitalization among patients with HF.
Aim: To compare SAFE score and SAFE score+average E/e’ in predicting 30-day-acute HF (AHF)- related-rehospitalization.
Methods: A prospective cohort study was conducted by involving 82 patients admitted with AHF in National Cardiovascular Center Harapan Kita (NCCHK). Bivariate and multivariate analysis were done to find out which of the 2 models: SAFE score and SAFE score+average E/e’ could better predict risk of 30-day-AHF-related-rehospitalization.
Results: The incidence of 30-day-AHF-related-rehospitalization in this study was 19,5%. By using Kaplan-Meier curve, we identified significantly lower 30-day-AHF-related-rehospitalization in patients discharged with euvolemia than those with hypervolemia (p 0,003). SAFE score+average E/e’ had better predictive

properties than SAFE score regarding 30-day-AHF-related-rehospitalization (AUC 0,77 [95% CI: 0,64 – 0,89] vs AUC 0,74 [95% CI: 0,62 – 0,85]).
Conclusion: SAFE score+average E/e’ had better predictive properties than SAFE score regarding 30- day-AHF-related-rehospitalization.