

## Pengaruh posisi Semifowler 30° Lateral Kanan terhadap curah jantung pada gagal jantung akut: Uji klinis crossover = The effect of Semifowler 30° Right Lateral on cardiac output in acute heart failure: A crossover clinical trial

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### Abstrak

Posisi tubuh semi fowler 30° lateral kanan yang dianggap upaya proteksi mandiri yang memiliki efek positif terhadap hemodinamik pada pasien gagal jantung, namun belum diketahui dampaknya terhadap curah jantung. Penelitian ini bertujuan untuk mengetahui pengaruh posisi semi fowler 30 lateral kanan terhadap curah jantung. Uji klinis crossover pada 20 subjek gagal jantung akut dengan teknik non randomisasi berdasarkan riwayat gagal jantung. Parameter hemodinamik diukur menggunakan alat LiDCO CNAP. Analisa dilakukan untuk menilai efek residual dan efektifitasnya menggunakan SPSS 26 & NCSS. Rentang usia subjek adalah 26-72 tahun. 75% tidak memiliki riwayat gagal jantung. 85% memiliki penurunan fraksi ejeksi ventrikel kiri <40%. Durasi washout 30 menit tidak menimbulkan efek residual dan tidak bermakna secara statistik ( $p>0.05$ ). Perbedaan rerata stroke volume ( $p<0.05$ ), variasi stroke volume  $20.1\pm 7.6$  vs  $43.3\pm 19$ . Rerata curah jantung 4.88 sedangkan semi fowler 4.20, tidak signifikan secara statistik ( $p>0.05$ ). Semi fowler 30 lateral kanan menurunkan variasi stroke volume dan meningkatkan rerata curah jantung. Dipertimbangkan sebagai strategi optimalisasi beban awal pada pasien gagal jantung preload dependent. ....The right lateral semi fowler 30° body position is considered a self-protective measure that has a positive effect on hemodynamics in heart failure patients, but the impact on cardiac output is not yet known. This study aimed to determine the effect of positioning the right lateral 30 semi fowler on cardiac output. A non randomized Crossover clinical trial on 20 acute heart failure subjects based on history of heart failure. Hemodynamic parameters were measured using the LiDCO CNAP. Statistical analysis was performed to assess the residual effect and assess its effectiveness using SPSS 26 & NCSS software. The age range of subjects is 26-72 years. 75% had no history of heart failure. 85% of subjects had a decrease in left ventricular ejection fraction <40%. The washout duration of 30 minutes caused no residual effect and was not statistically significant ( $p>0.05$ ). The average stroke volume differs significantly, stroke volume variation in SF30RL was  $20.1\pm 7.6$  vs  $43.3\pm 19$  in SF group. The mean cardiac output SF30RL was 4.88 while the semi fowler was 4.20 but not statistically significant ( $p>0.05$ ). The right lateral 30 semi fowler can increase cardiac output values. Considered as a volume optimization strategy in a preload dependent patients.