Nilai curah jantung, tahanan vaskular sistemik dan stroke volume variation intraoperatif pada pasien yang menjalani operasi transplantasi ginjal: perbandingan teknik bio-impedance analysis dan pulse contour analysis = Cardiac output, systemic vascular resistant and stroke volume variation intraoperative in renal transplantation recipient patients : comparison between bio-impedance analysis and pulse contour analysis

Ginting, Vivi Medina, author

Abstrak

ABSTRAK
 Latar Belakang. Optimalisasi hemodinamik perioperatif berkorelasi dengan peningkatan hasil terapi pascaoperasi. Alat pantau pulse contour analysis telah digunakan rutin pada operasi transplantasi ginjal di RSCM. Teknologi ini mahal dan harus dilakukan pemasangan akses kateter arteri. Terdapat alat ukur lain dengan kelebihan tidak invasif.Tujuan. Mengetahui kesesuaian hasil pengukuran hemodinamik antara teknik bio-impedance analysis dan pulse contour analysis pada pasien resipien transplantasi ginjal.Metode. Penelitian observasional statistik potong lintang terhadap 35 pasien resipien transplantasi ginjal di RSCM dan RSCM Kencana Jakarta periode Oktober 2017-Febuari 2018. Parameter hemodinamik pasien diukur menggunakan kedua alat uji yaitu ICONTM dan EV1000TM, pencatatan dilakukan pascainduksi, pascainsisi dan pascapelepasan klem arteri renalis. Analisis data menggunakan uji kesesuaian Bland-Altman dan korelasi.Hasil. Rerata perbedaan nilai indeks curah jantung dan indeks isi sekuncup antara kedua alat adalah 1,3 l/mnt/m2 dan 22,1 ml/denyut/m2 lebih tinggi pada EV1000TM. Rerata perbedaan hasil indeks tahanan vaskular sistemik dan stroke volume variation antara kedua alat adalah 973,3 dynes-detik-m2/cm5 dan 4,8 lebih rendah pada EV1000TM.Simpulan. Tidak terdapat kesesuaian hasil pengukuran curah jantung, tahanan vaskular sistemik dan stroke volume variation antara teknik bio-impedance analysis dengan teknik pulse contour analysis pada pasien resipien transplantasi ginjal.
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Background. Hemodynamic optimization perioperative has strong correlation with improvement of post-operative outcome. Pulse contour analysis uses regularly for monitoring in renal transplantation surgery at RSCM hospital. This technology is expensive and need access to artery vascular. There is other monitoring device with excess non-invasive use. Purpose. Comparing hemodynamic measurement results between bio-impedance analysis and pulse contour analysis in renal transplant recipients.Method. Cross sectional observasional study to 35 renal transplantation recipient patients at RSCM and RSCM Kirana hospitals Jakarta during October 2017-February 2018. Each patient was measured with both devices ICONTM and EV1000TM. Data collected after induction, after incision and after renal artery release. All the data analyzed with Bland-Altmant agreement and corellation.Result. Mean difference of cardiac output index and stroke volume index are 1,3 l/mnt/m2 and 22,1 ml/denyut/m2 higher in EV1000TM. Mean difference of systemic vascular resistance index and stroke volume variation are 973,3 dynes-detik-m2/cm5 and 4,8 lower in EV1000TM. Conclusion. There is no agreement in measurement of cardiac output, systemic vascular resistance and stroke volume variation between bio-impedance analysis and pulse contour analysis in renal transplantation recipient patients.