Korelasi Antara Tekanan Intraabdomen dengan Urine Output pada Resusitasi Cairan Luka Bakar = Correlation Between Intra-abdominal Pressure and Urine Output in Fluid Resuscitation for Burn Injury

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Abstrak

Latar belakang: Luka bakar adalah keadaan gawat darurat medis yang membutuhkan penanganan komprehensif sesuai dengan penyebab dan tingkat keparahan. Terapi resusitasi cairan sangat penting untuk mencegah atau mengatasi syok hipovolemik. Prinsipnya adalah memberikan cairan secara konservatif untuk mencapai tujuan resusitasi tanpa menyebabkan ekstravasasi cairan, yang dapat meningkatkan tekanan intraabdomen (TIA). TIA yang tinggi dan persisten dapat menyebabkan hipertensi intraabdomen (HIA) dan sindrom kompartemen abdomen (SKA). Formula Parkland tetap menjadi standar untuk resusitasi cairan, dengan menggunakan produksi urine (UO) sebagai penilaian kecukupan resusitasi.
Metode: Subjek dalam penelitian ini adalah pasien luka bakar yang mendapatkan resusitasi cairan di ULB RSCM dan memenuhi kriteria inklusi dan eksklusi. Penelitian ini menggunakan desain studi cross sectional untuk mengetahui korelasi antara TIA dan UO dan bersumber dari data primer. Pengambilan data dilakukan selama fase resusitasi cairan 24 jam pertama. Pengukuran TIA dilakukan setiap 6 jam, sedangkan pengukuran UO dilakukan setiap 1 jam.
Hasil: 12 pasien terinklusi dalam penelitian ini. Korelasi antara TIA dan UO 6 jam pertama bernilai lemah positif (r =0,225), pada 6 jam kedua korelasi lemah negatif (r = -0,226), pada 6 jam ketiga korelasi sedang negatif (r = -0,524), pada 6 jam keempat tidak terdapat korelasi (r = -0,120), pada korelasi secara keseluruhan selama 24 jam didapatkan korelasi lemah negatif (r = -0,208) tanpa adanya signifikansi secara keseluruhan (p > 0,05). Lebih lanjut, ditemukan korelasi antara %TBSA dengan jumlah cairan resusitasi selama 24 jam tergolong sangat kuat (r = 0,890) dan signifikan, korelasi antara %TBSA dengan rerata TIA selama 24 jam tergolong lemah positif (r = 0,226, p > 0,05), dan korelasi antara jumlah cairan resusitasi dan TIA rerata tergolong sedang positif (r = 0,467, p > 0.05).
Kesimpulan: Tidak terdapat korelasi secara signifikan (p > 0.05) antara tekanan intraabdomen terhadap urine output pada pasien luka bakar selama fase 24 jam resusitasi cairan pertama di ULB RSCM.
.....Introduction: Burns are urgent medical emergencies requiring comprehensive management based on etiology and severity. Fluid resuscitation therapy is crucial to prevent or manage hypovolemic shock. The principle is to administer fluid conservatively to achieve resuscitation goals without causing fluid extravasation, which can lead to intra-abdominal pressure (IAP) elevation. Persistent high IAP can result in intra-abdominal hypertension (IAH) and abdominal compartment syndrome (ACS). The Parkland formula remains standard for fluid resuscitation, utilizing urine output (UO) to assess adequacy.
Methods: Subjects in this study were burn patients who received fluid resuscitation at ULB RSCM and met the inclusion and exclusion criteria. This research uses a cross-sectional study design to determine the correlation between TIA and UO and is sourced from primary data. Data collection was carried out during the first 24 hours of fluid resuscitation phase. IAP measurements are carried out every 6 hours, while UO measurements are carried out every 1 hour.
Result: 12 patients were included in this study. The correlation between IAP and UO in the first 6 hours was

weakly positive (r = 0.225), in the second 6 hours the correlation was weakly negative (r = -0.226), in the third 6 hours the correlation was moderately negative (r = -0.524), in the fourth 6 hours it was not there is a correlation (r = -0.120), in the overall correlation for 24 hours there is a weak negative correlation (r = -0.208) with no overall significance (p > 0.05). Furthermore, it was found that the correlation between %TBSA and the amount of resuscitation fluid for 24 hours was classified as very strong (r = 0.890) and significant, the correlation between %TBSA and average IAP for 24 hours was classified as weakly positive (r = 0.226, p > 0.05), and the correlation between the amount of resuscitation fluid and average IAP was moderately positive (r = 0.467, p > 0.05).

Conclusion: There is no significant correlation (p>0.05) between intra-abdominal pressure and urine output in burn patients during the first 24hour phase of fluid resuscitation at ULB RSCM.