Gangguan Ginjal Akut pada Asfiksia Neonatorum = Acute Kidney Injury in Asphyxiated Neonates

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Abstrak

Latar Belakang : Asfiksia neonatorum menyebabkan gangguan multiorgan, salah satunya adalah gangguan ginjal. Belum adanya kesepakatan dalam menentukan gangguan ginjal akut (acute kidney injury, AKI) pada neonatus menyebabkan kesulitan dalam mendiagnosis dan selanjutnya menghambat tata laksana AKI. Acute Kidney Injury Network (AKIN) merekomendasikan kriteria AKI berdasarkan peningkatan kadar kreatinin serum dan penurunan luaran urin.
Tujuan : Mengetahui prevalens AKI dengan menggunakan kriteria AKIN pada asfiksia neonatorum, dan mengetahui perbedaan stadium AKI antara asfiksia sedang dan berat.
Metode : Studi ini merupakan potong lintang analitik yang berlangsung selama Juli 2012 hingga Januari 2013. Subjek penelitian adalah semua bayi baru lahir usia gestasi >35 minggu dengan asfiksia yang lahir dan dirawat di Divisi Neonatologi RS Cipto Mangunkusumo dan RSUD Koja. Analisis menggunakan uji hipotesis Chi-square dengan SPSS versi 20.
Hasil : Penelitian dilakukan pada 94 subjek yang terdiri atas 70 neonatus asfiksia sedang dan 24 neonatus asfiksia berat. Prevalens AKI berdasarkan kriteria AKIN pada asfiksia neonatorum adalah 63%. Prevalens bayi dengan asfiksia berat dan sedang yang mengalami AKI berturut-turut adalah 21 dari 24 subjek (88%) dan 38 subjek (54%). Prevalens bayi dengan asfiksia berat mengalami AKI stadium 3 yang terbanyak yaitu 14 dari 21 subjek (67%). Stadium AKI yang lebih berat lebih banyak dijumpai pada bayi dengan asfiksia berat dibandingkan asfiksia sedang (P<0,001).
Simpulan : Prevalens AKI pada asfiksia neonatorum cukup tinggi. Makin berat derajat asfiksia neonatorum, makin berat stadium AKI.
.....Background: Asphyxia neonatorum may result in multiorgan disfunction including renal disfunction. There is no consensus on the determination of acute kidney injury (AKI) in neonates making establishment of the diagnosis and its management difficult. The Acute Kidney Injury Network (AKIN) recommends AKI criteria based on increased serum creatinine level and reduced urine output.
Objective: To identify the prevalence of AKI in asphyxiated neonates using the AKIN criteria and to recognize the difference of AKI stadium between moderate and severe asphyxia.
Methods: The study was a cross-sectional analytical study, which was conducted between July 2012 and January 2013. The study subjects were all asphyxiated neonates with gestational age of >35 weeks who were delivered and hospitalized in Cipto Mangunkusumo Hospital and Koja District Hospital. Analysis was performed by hypothesis Chi-square test using SPSS version 20.
Results: Of 94 subjects participated in the study, there were 70 and 24 neonates with moderate and severe asphyxia, respectively. The prevalence of AKI was 63%. The prevalence of neonates with severe and moderate asphyxia who experienced AKI was 21 out of 24 subjects (88%) and 38 subjects (54%), respectively. The prevalence of AKI in neonates with severe asphyxia who had stage 3 AKI was 14 out of 21 subjects (67%). More severe AKI stage was found more common in neonates with severe asphyxia

(P<0.001)
Conclusions: The prevalence of AKI in neonatal asphyxia is high. The more severe stage of neonatal asphyxia, the more severe the AKI stage