

Hubungan perubahan status disfungsi sistem organ berdasarkan skor Modified Sequential Organ Failure Assessment dengan penggunaan Furosemid pada pasien perawatan intensif = The Effects of Furosemide usage with organ system failure status based on modified Sequential Organ Failure Assessment Score in Critically Ill Patient

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Abstrak

ABSTRAK

Latar Belakang: Sebanyak 86 pasien dengan administrasi cairan mengalami akumulasi cairan positif hingga menyebabkan 35 dari seluruh pasien ICU tahun 2009-2012 mengalami volume cairan berlebih. Efek terburuk akibat hal ini adalah kegagalan multi sistem organ tubuh. Sehingga, salah satu penanganan volume cairan berlebih adalah intervensi diuresis untuk menyelesaikan masalah fisiologis. Masih belum dibuktikan melalui penelitian mengenai manfaat penyelesaian disfungsi sistem organ dari diuresis furosemid untuk menurunkan balans cairan di saat pasien justru mengalami hipoperfusi organ serta berbagai efek samping dari furosemid tersebut. Tujuan: Atas dasar itu, dilakukan penelitian berupa analisis hubungan antara perubahan status disfungsi sistem organ berdasarkan skor MSOFA dengan penggunaan furosemid, beserta analisis data demografik dan klinik pasien volume cairan berlebih di perawatan intensif. Metode: Desain penelitian merupakan kohort retrospektif dengan pengambilan data dari 194 sampel rekam medik yang didapatkan secara consecutive sampling. Data penggunaan furosemid dan perubahan skor MSOFA pada pasien fluid overload dimasukkan dalam tabel 2x2, kemudian dianalisis menggunakan metode chi square. Hasil: Hasil membuktikan bahwa terdapat hubungan signifikan antara perubahan status disfungsi sistem organ dengan penggunaan furosemid pada pasien perawatan intensif p.

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ABSTRACT

Eighty

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six percent of

patient

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were

administrated

with IV Fluid

resuscitation

had

positive fluid accumulation that results in fluid overload

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n

35%

of all ICU patients in 2009

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2012. The worst consequence of this situation is multi
organs failures. Thus, one of the fluid overload treatment is pharmacological
diuresis to solve the physiological problems. Despite of its adverse effects and fluid
bal
ance decrement on the
hypo
perfusion
organ, the organ failure
re
solution of
furosemide usage has not been proven through any research. Hence, a research
which analyzed the
correlation of organ system failure status based on modified
sequential organ fai
lure assessment score with furosemide usage on intensive care
patient
and their
demographics
data has been conducted.

Method:

The research design was
a
retrospective
cohort which analyzed 194
subjects from
Cipto Mangunkusumo Hospital ICU
medical records selected by
consecutive sampling method. Data of furosemide usage and MSOFA Score
changes were recorded to
the
2x2
table, then they were analyzed by chi square
method.

Results:

The result
pro
ve
s
that
there is significant association
between

worsening organ system failure with furosemide usage on critically ill patients ($p < 0,05$), especially in cardiovascular and central venous system.

The relative risk result

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shows that

furosemide usage resulted in higher MSOFA score 1,271 times more than those patients with no furosemide diuresis usage (95% CI

1,108

-

1,458

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Conclusions:

The furosemide usage worsens the organ failure based on MSOFA score.

These can be resulted by

iatrogenic effect of too negative fluid balance and

furosemide's adverse effects in the patients. There are clinical data which have significant correlation and can be analysed further, including: fluid balance before and after

therapy, risk factors

, and organ failure components.