

## Efek allopurinol terhadap kejadian fibrilasi atrium pasca bedah pintas arteri koroner = Allopurinol effect on the incidence of atrial fibrillation following coronary artery bypass surgery

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### Abstrak

[Latar belakang : Fibrilasi atrium merupakan aritmia yang paling sering terjadi pasca bedah pintas arteri koroner. Peningkatan stress oksidatif, inflamasi, aktivitas neurohormonal memiliki peran terhadap kejadian fibrilasi atrium pasca bedah pintas arteri koroner. Berbagai strategi farmakologis seperti antiaritmia, antiinflamasi, dan antioksidan sudah dipelajari untuk menurunkan risiko kejadian fibrilasi atrium pasca bedah pintas arteri koroner namun kejadian fibrilasi atrium masih tinggi. Allopurinol memiliki efek antioksidan, namun belum ada uji klinis yang mempelajari efek allopurinol terhadap kejadian fibrilasi atrium. Penelitian ini bertujuan untuk menilai efek allopurinol terhadap kejadian fibrilasi atrium pasca bedah pintas arteri koroner

Metode : Uji klinis randomisasi tersamar ganda dilakukan di Rumah Sakit Pembuluh Darah Harapan Kita (RSJPDHK) pada periode April ? Mei 2015. Pasien BPAK on-pump elektif yang diseleksi secara consecutive sampling kemudian dibagi menjadi dua kelompok yaitu kelompok allopurinol dan kelompok plasebo dengan randomisasi blok. Subyek diberikan allopurinol 600 mg / plasebo dosis tunggal sejak 1 hari sebelum operasi sampai hari ke-5 pasca operasi. Dilakukan pengamatan kejadian fibrilasi atrium pasca operasi sampai pasien pulang dari perawatan.

Hasil : Sebanyak 90 subyek diikutsertakan dalam penelitian, 45 subyek pada masing-masing kelompok. Kejadian fibrilasi atrium lebih rendah secara bermakna pada kelompok allopurinol (12 (26,7%) vs 22 (48,9%) p 0,030).

Kesimpulan : Pemberian allopurinol perioperatif menurunkan kejadian fibrilasi atrium pasca bedah pintas arteri koroner.;Background : Atrial fibrillation is the most common arrhythmias after coronary artery bypass surgery. Increased oxidative stress, inflammation, neurohormonal activity has a role on the incidence of atrial fibrillation after coronary artery bypass surgery. Various pharmacological strategies such as antiarrhythmias, antiinflammatory,

and antioxidant have been studied to decrease atrial fibrillation incident after coronary artery bypass surgery, but the incidence of atrial fibrillation is still high. Allopurinol has antioxidant effects, but there was no clinical trials that studied the effect of allopurinol on atrial fibrillation incidence. The aim of this study to assess allopurinol effect on the atrial fibrillation incidence after coronary artery bypass surgery.

Methods: A double-blind randomized clinical trial conducted at the National

Cardiovascular Center Harapan Kita in Jakarta from April to May 2015. Elective on-pump CABG patients were selected by consecutive sampling then divided into two groups: allopurinol and placebo groups with block randomization. Subjects given allopurinol 600 mg / placebo single dose since 1 day before surgery until the 5th day post-surgery. The incidence of atrial fibrillation was observed postoperatively.

Results: A total of 90 subjects were included in the study, 45 subjects in each group. Occurrence of atrial fibrillation was significantly lower in the allopurinol group (12 (26.7%) vs 22 (48.9%) p 0,030).

Conclusion: Perioperative allopurinol reduced the incidence of atrial fibrillation after coronary artery bypass surgery., Background : Atrial fibrillation is the most common arrhythmias after coronary artery bypass surgery. Increased oxidative stress, inflammation, neurohormonal activity has a role on the incidence of atrial fibrillation after coronary artery bypass surgery. Various pharmacological strategies such as antiarrhythmias, antiinflammatory,

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