

**FAKTOR RISIKO KEJADIAN FIBRILASI ATRIUM
PASCA OPERASI BEDAH PINTAS ARTERI KORONER
STUDI DI RSUP DR. KARIADI SEMARANG**

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ABSTRAK

Latar belakang: Fibrilasi atrium pasca operasi (FAPO) merupakan takiaritmia supraventrikular pasca bedah pintas arteri koroner (BPAK) yang sering terjadi. Faktor risiko terjadinya FAPO melibatkan multifaktorial, sehingga perlu dilakukan identifikasi faktor risiko terjadinya FA pasca operasi BPAK.

Metode: Desain penelitian ini *case control*, dengan sampel penelitian kelompok FAPO dan non FAPO pasca operasi BPAK di RSUP dr Kariadi periode Juni 2022-April 2023. Pasien dilakukan pemeriksaan ekokardiografi pra operasi meliputi LA *strain* dan *left atrial function index* (LAFI) serta data klinis diambil berdasarkan rekam medis. FAPO ditegakkan berdasarkan pemantauan irama jantung kontinyu hingga 96 jam pasca operasi BPAK.

Hasil: FAPO ditemukan pada 24 dari 51 pasien (47%). Onset FAPO paling banyak pada hari kedua pasca operasi sebesar 53%. Tidak terdapat perbedaan bermakna pada usia, indeks massa tubuh, diabetes mellitus, laju filtrasi glomerulus, penyakit paru obstruktif kronik, fraksi ejeksi ventrikel kiri, durasi *cardiopulmonary bypass*, durasi *aortic cross clamp*, *re-operation*, *fluid balance* dan anemia diantara kelompok FAPO dan non FAPO. Analisa bivariat menunjukkan perbedaan yang bermakna pada LA *reservoir* ($p < 0.001$), LA *contraction* ($p < 0.001$), LAFI ($p = 0.002$), penggunaan inotropik vasoaktif dosis tinggi ($p = 0.003$) dan pemberian β -blocker ≥ 45 jam pasca operasi ($p = 0.008$). Pada analisis multivariat, faktor risiko independen FAPO meliputi: LA *contraction* $\leq 12.5\%$ ($p = 0.012$; OR 19.54; IK 95% 1.94-196.95) dan pemberian β -blocker ≥ 45 jam pasca operasi ($p = 0.019$; OR 15.21; IK 95% 1.56-147.83).

Kesimpulan: LA *contraction* dan pemberian β -blocker ≥ 45 jam pasca operasi BPAK merupakan faktor risiko independen kejadian FAPO.

Kata kunci: Faktor resiko, Fibrilasi atrium pasca operasi, Bedah pintas arteri koroner.

**RISK FACTORS OF POST OPERATIVE ATRIAL FIBRILLATION AFTER
CORONARY ARTERY BYPASS GRAFT SURGERY
STUDY AT DR. KARIADI SEMARANG**

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ABSTRACT

Background: Postoperative atrial fibrillation (POAF) is the most common postoperative tachyarrhythmia after coronary artery bypass graft (CABG) surgery. The risk factors that underlie POAF after CABG surgery are multifactorial and incompletely understood thus it needs further identification

Methods: This is a case-control study that included 2 groups which are patients who developed POAF and non-POAF after CABG from June 2022 to April 2023 in RSUP Dr. Kariadi. Echocardiography was done on the patients before CABG surgery, the data includes LA strain and *left atrial function index* (LAFI) and also from the patient's medical record. POAF was diagnosed based on continuous heart rhythm observation for 96 hours after CABG surgery

Result: From a total of 51 patients, POAF was found in 24 out of 51 patients (24%) with the peak of time the incidence of POAF was the second day after surgery (53%). There were no significant differences in age, body mass index (BMI), Diabetes Mellitus (DM), glomerular filtration rate, chronic obstructive pulmonary disease (COPD), cardiopulmonary bypass duration, aortic cross-clamp duration, re-operation, fluid balance, and anemia in POAF and non POAF group. Bivariate analysis shows significant differences in *LA reservoir* ($p < 0.001$), *LA contraction* ($p < 0.001$), LAFI ($p = 0.002$), high-dosed vasoactive inotropes ($p = 0.003$), and administration of β -blocker ≥ 45 hours after surgery ($p = 0.008$). In multivariate analysis, independent risk factors for POAF include *LA contraction* $\leq 12.5\%$ ($p = 0.012$; OR 19.54; IK 95% 1.94-196.95) and administration of β -blocker ≥ 45 hours after surgery ($p = 0.019$; OR 15.21; IK 95% 1.56-147.83).

Conclusion: *LA contraction* and administration of β -blocker ≥ 45 hours after CABG surgery are the independent risk factors for POAF.

Keywords: Risk factor, Postoperative Atrial Fibrillation, Coronary Artery Bypass Graft