

**FAKTOR RESIKO YANG MEMPENGARUHI KEJADIAN  
FIBRILASI ATRIAL PASCAOPERASI PADA BEDAH KATUP JANTUNG  
ELEKTIF DEWASA DI RUMAH SAKIT UMUM PUSAT DR. KARIADI  
SEMARANG  
KAJIAN MULTIVARIAT**

**ABSTRAK**

**Latar Belakang:** Fibrilasi atrium pasca operasi (FAPO), merupakan komplikasi yang sering terjadi segera pada periode pasca operasi dan merupakan masalah klinis yang relevan. Faktor risiko terjadinya FAPO dibagi menjadi 3 yaitu preoperatif, intraoperatif dan pascaoperatif. Hingga saat ini terdapat banyak ketidaksepakatan mengenai faktor klinis mana yang terkait dengan risiko FAPO terbesar.

**Metode:** Penelitian ini merupakan penelitian observasional analitik dengan rancangan *nested case-control*. Sampel merupakan pasien yang menjalani operasi bedah katup jantung elektif di RSUP Dr. Kariadi Semarang periode Januari 2024 – Juli 2024 sebanyak 59 subjek. Data diolah dengan software SPSS for windows.

**Hasil:** Terdapat hubungan antara variabel pre-operatif usia ( $p = 0,002$ ; OR = 1,509 (1,159 – 1,965)), variabel intra-operatif durasi CPB ( $p < 0,001$ ; OR = 1,287 (1,124 – 1,474)), dan variabel pasca-operatif selisih Mg ( $p = 0,041$ ; OR = 50,57 (0,98 – 2607,9)) terhadap terjadinya FAPO pada pasien yang menjalani operasi bedah katup jantung. Melalui kajian analisis multivariat didapatkan selisih kadar Mg memiliki pengaruh paling besar ( $p = 0,039$ ; OR = 73,12 (0,69-7698,8)), diikuti usia ( $p = 0,002$ ; OR=1,52 (1,16 – 1,99)), dan durasi CPB ( $p = 0,021$ ; OR=1,38 (1,08 – 1,76)).

**Kesimpulan:** Faktor risiko yang mempengaruhi terjadinya FAPO pada pasien operasi bedah katup jantung di RSUP Dr. Kariadi Semarang meliputi faktor risiko pre-operatif yaitu usia; faktor risiko intra-operatif yaitu durasi CPB, dan faktor risiko pasca-operatif yaitu selisih kadar Mg. Dari ketiga faktor risiko tersebut diketahui selisih kadar Mg adalah variabel yang paling dominan berpengaruh.

**Kata kunci:** fibrilasi atrium pasca operasi, operasi katup jantung, fibrilasi atrium

**RISK FACTORS AFFECTING THE EVENT  
POST-OPERATIVE ATRIAL FIBRILLATION IN ADULT ELECTIVE HEART VALVE  
SURGERY AT DR. KARIADI SEMARANG  
MULTIVARIATE STUDY**

**ABSTRACT**

**Background:** Postoperative atrial fibrillation (FAPO), is a complication that often occurs in the immediate postoperative period and is a relevant clinical problem. Risk factors for FAPO are divided into 3, preoperative, intraoperative and postoperative. To date there is much disagreement regarding which clinical factors are associated with the greatest risk of FAPO.

**Method:** This research is an analytical observational study with a nested case-control design. The samples were patients who underwent elective heart valve surgery at RSUP Dr. Kariadi Semarang for period January 2024 - July 2024 as many as 59 subjects. The data was processed with SPSS for Windows software.

**Results:** The pre-operative factor of age ( $p = 0,002$ ;  $OR = 1,509 (1,159 - 1,965)$ ), intra-operative factor of CPB duration ( $p < 0,001$ ;  $OR = 1,287 (1,124 - 1,474)$ ), and post-operative factor of the difference in Mg levels pre and post surgery ( $p = 0,041$ ;  $OR = 50,57 (0,98 - 2607,9)$ ) were shown correlation with the occurrence of FAPO on patient undergo cardiac valve surgery. Based on the multivariate analysis this study also found the most influential factor is difference in Mg level ( $p = 0,039$ ;  $OR = 73,12 (0,69-7698,8)$ ), followed by age ( $p = 0,002$ ;  $OR=1,52 (1,16 - 1,99)$ ), and duration of CPB ( $p = 0,021$ ;  $OR=1,38 (1,08 - 1,76)$ ).

**Conclusion:** Risk factors that influence occurrence of FAPO on patient undergo heart valve surgery patients at RSUP Dr. Kariadi Semarang includes age as pre-operative risk factors; duration of CPB as intra-operative risk factors, and difference in Mg level as post-operative risk factors. Differences in Mg levels are found to be the most influential risk factor.

**Key words:** post-operative atrial fibrillation, heart valve surgery, atrial fibrillation