

# Deteksi dini perubahan kognitif pasca-operasi coronary artery bypass graft di Pelayanan Jantung Terpadu RSUPNKM Jakarta = Early detection of cognitive changes in post-surgery coronary artery bypass graft in Pelayanan Jantung Terpadu RSUPNKM Jakarta

Neysa Calista, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20424526&lokasi=lokal>

---

## Abstrak

**Tujuan:** Mendapatkan data nilai insiden postoperative cognitive disorders (POCD) pascaCABG dan menilai perbandingan penurunan fungsi kognitif pasca-CABG dengan mini mental state examination (MMSE) dan Montreal cognitive assessment versi Indonesian (MoCA-Ina). Tujuan tambahan penelitian ini untuk membandingkan lama waktu pemeriksaan MMSE dan MoCA-Ina, mengetahui korelasi antara MMSE dan MoCA-Ina, dan mengetahui hubungan antara karakteristik subjek dengan POCD pasca-CABG.

**Metode:** Desain pre dan post-test pada sebelum CABG, tiga hari pasca-CABG, dan satu bulan pasca-CABG. Penelitian dilakukan pada 40 subjek yang didapat secara konsekutif, berusia 40 tahun dan memenuhi kriteria penelitian. Penilaian fungsi kognitif dengan formulir MMSE dan MoCA-Ina. Data demografis dan klinis pasien dikumpulkan dan dicatat.

**Hasil:** Seluruh subjek mengalami penurunan rerata score MMSE dan MoCA-Ina pada sebelum CABG dibandingkan tiga hari pasca-CABG. Terdapat 10 subjek (25%) dengan MMSE, dan 16 subjek (40%) dengan MoCA-Ina yang tergolong POCD pada 3 hari pascaCABG. Seluruh subjek mengalami peningkatan nilai MMSE dan MoCA-Ina pada satu bulan pasca-CABG dibandingkan tiga hari pasca-CABG. Sebanyak 7 subjek (17,5%) dengan MMSE dan 9 subjek (22,5%) dengan MoCA-Ina tergolong POCD pada 1 bulan pascaCABG. Lama waktu pemeriksaan MMSE lebih singkat hampir dua kali lipat dibandingkan MoCA-Ina ( $p < 0,0001$ ). Terdapat korelasi kuat antara MMSE dengan MoCA-Ina ( $r = 0,79$   $p < 0,0001$ ). Untuk hubungan antara karakteristik subjek, didapatkan korelasi kuat antara lama waktu CPB dengan POCD ( $r = 0,869$   $p = 0,040$ ), korelasi sedang antara usia dengan POCD ( $r = 0,58$   $p = 0,047$ ) pada 3 hari pasca-CABG, korelasi lemah antara tingkat pendidikan ( $r = 0,36$   $p = 0,228$ ) dan lama operasi ( $r = 0,36$   $p = 0,022$ ) terhadap POCD, dan korelasi sangat lemah antara jenis kelamin ( $r = 0,10$   $p = 0,52$ ) dan status pekerjaan ( $r = 0,07$   $p = 0,64$ ) terhadap POCD.

**Kesimpulan:** Terdapat penurunan fungsi kognitif tiga hari pasca-CABG, yang mengalami perbaikan pada satu bulan pasca-CABG. MoCA-Ina dapat mendeteksi penurunan fungsi kognitif dengan proporsi yang lebih besar dibandingkan MMSE pada subjek pasca-CABG.

.....**Objective:** To determine the incidence of postoperative cognitive disorders (POCD) postCABG and assess the comparative decline after CABG using the Mini Mental State Examination (MMSE) and Montreal Cognitive assessment Indonesia version (MoCA-Ina). Secondary purpose are comparing the length of time between MMSE and MoCA-Ina, determining the correlation between MMSE and MoCA-Ina, and also determining the relationship between the characteristics of subjects with POCD post-CABG.

**Methods:** A pre and post-test on before CABG, 3 days after CABG, and one month afterCABG study. The study was conducted on 40 respondents who obtained consecutively, aged 40 years and met the study criteria. Assessment of cognitive functional form using MMSE and MoCA-Ina. Patint demographic and clinical data were collected and recorded.

Results: All subjects experienced decrease in score of MMSE and MoCA-Ina on before CABG than three days post-CABG. There were 10 subjects (25%) using MMSE and 16 subjects (40%) using MoCA-Ina to POCD. All subjects had an increase score both MMSE and MoCA-Ina in one month post-CABG compared to three days post-CABG. There were 7 subjects (17.5%) by MMSE and 9 subjects (22.5%) by MoCA-Ina classified as POCD. The length of time were shorter using MMSE for almost doubled compared to MoCA-Ina ( $p < 0.0001$ ). There was a strong correlation ( $r = 0.76$ ,  $p < 0.0001$ ) between the MMSE with MoCA-Ina. For the correlations between subject characteristics, there was a strong correlation between CPB time to POCD ( $r = 0.869$ ,  $p = 0.040$ ), moderate correlation between the age to POCD ( $r = 0.58$ ,  $p = 0.047$ ) at 3 days post-CABG, a weak correlation between education status ( $r = 0.36$ ,  $p = 0.228$ ) and operation time ( $r = 0.36$ ,  $p = 0.022$ ) to POCD, and very weak correlation between gender ( $r = 0.10$ ,  $p = 0.52$ ) and employment status ( $r = 0.07$ ,  $p = 0.64$ ) to POCD.

Conclusion : There is a decline in cognitive function between three days after CABG, which improves in one month after CABG. MoCA-Ina can detect cognitive dysfunction in a greater proportion compared to MMSE in post - CABG subjects.