

INTISARI

Latar belakang: *Contrast Induced Nephropathy* (CIN) merupakan komplikasi penting dari penggunaan zat kontras berbahan iodin, salah satunya pada prosedur *Percutaneous Coronary Intervention* (PCI). Gangguan fungsi ginjal dan DM merupakan faktor risiko CIN yang penting. Obat pemblok RAAS masih menjadi faktor risiko yang kontroversial dikarenakan data penelitian yang saling bertentangan.

Tujuan: Mengetahui pengaruh penggunaan obat pemblok RAAS jangka panjang terhadap kejadian CIN pada subyek DM dengan gangguan fungsi ginjal ringan sedang yang menjalani PCI di RS Jantung Harapan Kita.

Metode: Penelitian observasional dengan desain *historical cohort*. Total 281 subyek masuk dalam penelitian ini yang terbagi menjadi dua kelompok berdasar pemakaian obat pemblok RAAS (RAAS +, n = 146; RAAS -, n = 135). CIN didefinisikan sebagai peningkatan serum kreatinin $\geq 25\%$ dari nilai awal 48-72 jam paska PCI.

Hasil: Kejadian CIN secara keseluruhan sebesar 14,95%. Tidak ada beda kejadian CIN antara kedua kelompok penelitian ($p = 0,952$) dengan risiko relatif kejadian CIN akibat penggunaan obat pemblok RAAS sebesar 1,02. LVEF $\leq 40\%$ (OR 2,300; 95% CI 1,028 – 5,143; $p = 0,043$), Anemia (OR 2,628; 95% CI 1,274 – 5,422; $p = 0,009$) dan GFR pre PCI ≤ 60 mL/menit (OR 2,782; 95% CI 1,293 – 5,987; $p = 0,009$) merupakan prediktor penting CIN.

Kesimpulan: Pemakaian obat pemblok RAAS jangka panjang tidak meningkatkan angka kejadian CIN pada pasien DM dengan gangguan fungsi ginjal ringan sedang yang menjalani PCI di RS Jantung Harapan Kita.

Kata kunci: obat pemblok RAAS, contrast induced nephropathy, percutaneous coronary intervention, diabetes mellitus, gangguan fungsi ginjal.

ABSTRACT

Background: Contrast Induced Nephropathy (CIN) is main complication in the use of iodinated contrast media such as Percutaneous Coronary Intervention (PCI). Renal insufficiency and Diabetes Mellitus are important CIN's risk factors. RAAS blocking agents still a controversial risk factor because conflicting data results.

Objectives: The aim of this study was to investigate the effect of long term use of RAAS blocking agents on the incidence of CIN on patients with DM and renal insufficiency underwent PCI in RS Jantung Harapan Kita.

Methods: Observational study using historical cohort design. A total 281 subyek were included in this study and divided into two groups based on prior used of RAAS blocking agents (RAAS +, n = 146; RAAS -, n = 135). CIN was defined as an increase of $\geq 25\%$ in creatinin over baseline value 48-72 hours after PCI.

Result: Total incidence of CIN was 14,95%. There was no difference in the incidence of CIN between 2 study groups ($p = 0,952$) and relatif risk for CIN was 1,02. LVEF $\leq 40\%$ (OR 2,300; 95% CI 1,028 – 5,143; $p = 0,043$), Anemia (OR 2,628; 95% CI 1,274 – 5,422; $p = 0,009$) and GFR pre PCI ≤ 60 mL/menit (OR 2,782; 95% CI 1,293 – 5,987; $p = 0,009$) were important predictors of CIN.

Conclusion: Long term use of RAAS blocing agents did not increase the incidence of CIN on patients with DM and renal insufficiency underwent PCI in RS Jantung Harapan Kita.

Key words: RAAS blocking agents, contrast induced nephropathy, percutaneous coronary intervention, diabetes mellitus, renal insufficiency