

Hubungan Antara Kadar Tryptase dengan *Ventricular Remodelling* Setelah 1 Bulan Pada Penderita Sindroma Koroner Akut

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Abstrak

Latar Belakang: Sindroma Koroner Akut (SKA) diawali ruptur atau erosi plak yang dapat dipicu oleh pelepasan mediator inflamasi tryptase yang berasal dari degranulasi sel mast. Proses *ventricular remodeling* (VR) terjadi segera setelah SKA dan dapat dievaluasi dengan pemeriksaan ekokardiografi. Tryptase berperan dalam proses VR terutama pada fase *infarct healing* dimana tryptase dapat memodulasi ekspresi endothelial *chemokine* dan menginduksi proliferasi fibroblast serta kolagen melalui aktivasi *matrix metalloproteinase* (MMP).

Tujuan: Menganalisis hubungan antara kadar tryptase dengan *ventricular remodeling* setelah 1 bulan pada penderita SKA

Metode: Penelitian ini adalah penelitian analitik observasional dengan pendekatan *cohort*. Sampel 37 penderita SKA dikumpulkan secara *purposive sampling* dan pada akhir pengamatan didapatkan 25 penderita. Dilakukan pemeriksaan kadar tryptase dan ekokardiografi saat awal MRS, serta pemeriksaan ulang ekokardiografi setelah 1 bulan pengamatan.

Hasil: Terdapat perbedaan yang tidak signifikan kejadian *ventricular remodeling* total setelah 1 bulan antara kelompok tryptase rendah dan tinggi ($p=0,668$). Terdapat *interdependency* yang tidak bermakna antara kelompok tryptase dengan *ventricular remodeling* total, *remodelling* LVEDV dan *remodelling* LVESV ($p>0,05$). Hasil uji regresi logistik didapatkan kadar tryptase maupun kategori kelompok tryptase tidak mempunyai pengaruh yang signifikan terhadap *ventricular remodeling* namun keduanya cenderung merupakan faktor resiko terhadap *ventricular remodeling*. Analisis regresi linier multiple menunjukkan multikolinieritas antara variabel LVEDV dan LVESV saat MRS dan setelah 1 bulan terhadap hubungan tryptase dan *ventricular remodeling* ($VIF \geq 10$, $tolerance \leq 0,10$).

Kesimpulan: Terdapat hubungan tidak bermakna antara kadar tryptase dengan *ventricular remodeling* total setelah 1 bulan pada penderita SKA.

Kata Kunci: Tryptase, sindroma koroner akut, *ventricular remodeling*

The Association between Plasma Tryptase with Ventricular Remodelling after 1 month in patients with acute coronary syndrome

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Abstract

Background: Acute Coronary Syndrome (ACS) was initiated by the rupture or erosion of atherosclerotic plaque which is triggered by the release of inflammatory mediators derived from mast cell degranulation one of which is tryptase . The process of ventricular remodeling (VR) occurs immediately after ACS and can be evaluated by echocardiography. Tryptase plays a role in the process of VR , especially in infarct healing phase where tryptase can modulate the expression of endothelial chemokine and induce fibroblast proliferation and collagen through the activation of matrix metalloproteinase (MMP).

Objectives: Analyze association between the levels of tryptase with ventricular remodeling after 1 month in patients with ACS

Method: This study is observational analytic research with cohort approach. Samples of 37 patients with ACS were collected by purposive sampling. At the end of observation periode 25 patients were collected. Tryptase levels and echocardiography examination were performed when patient was admitted. Repeated echocardiography examination were performed after 1 month.

Result: There is a non-significant differences of patients who undergo total VR after 1 month between tryptase group(lower and higher) ($p = 0.668$). There is no significant interdependency between groups of tryptase with a VR, remodelling LVEDV and remodelling LVESV ($p > 0.05$). Logistic regression test analysis showed levels of tryptase and tryptase group categories have no significant effect on VR but they tend to be a risk factor for VR. Multiple linear regression analysis showed multicollinearity between variables LVEDV and LVESV when admitted to hospital and after 1 month discharge to the the relationship between tryptase and VR ($VIF \geq 10$, tolerance $\leq 0,10$).

Conclusion: There is no significant association between tryptase with ventricular remodelling after a month in ACS patients.

Key Word: Tryptase, acute coronary syndrome, ventricle remodelling