INTISARI

Efek Pemberian Kortikosteroid Terhadap Perubahan Kadar Thyroid Stimulating Hormone Antibody (TRAb) Pada Pasien Orbitopati Graves Aktif Derajat Sedang Berat

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Latar Belakang: Orbitopati Graves' (OG) manifestasi tersering ekstratiroid pada Penyakit Graves'. *Thyroid stimulating hormone receptor antibody* (TRAb) biomarker spesifik dan berperan dalam patogenesis OG. Injeksi Kortikosteroid merupakan tata laksana utama GO aktif derajat sedang berat.
Tujuan Penelitian: Mengetahui efek pemberian kortikosteroid terhadap kadar TRAb pasien OG aktif derajat sedang berat dan hubungannya dengan kondisi klinis pasien.
Metode Penelitian: Penelitian *retrospektif* dengan menggunakan data sekunder pasien RSUP Dr. Sardjito Yogyakarta. Subyek pasien OG aktif derajat sedang berat dan mendapatkan injeksi steroid Methylprednisolone (MP) IV dosis kumulatif 3 gram selama 6 minggu. Pemeriksaan serum TRAb dengan metode *electrochemiluminescence immunoassay* (ECLIA). Data klinis eksofthalmos, fisura palpebra, diplopia dinilai. Uji analisis dengan t tes berpasangan dan dilanjutkan uji multivariat dengan regresi linier dan regresi logistic.
Hasil Penelitian: 23 subyek dengan usia rerata 36.56 tahun, dominan wanita (60.9%). Kadar TRAb rerata turun signifikan setelah pemberian MP IV selama 6 minggu ($p=0.02$). Perbaikan eksoftalmos dan fisura palpebra yang secara statisktik bermakna ($p=0.01$; $p=0.02$). Tidak didapatkan adanya hubungan penurunan TRAb dengan parameter klinis yang dinilai ($p>0.05$).
Kesimpulan: Pemberian MP IV dosis.kumulatif 3 gram selama 6 minggu terbukti secara statistik menurunkan rerata TRAb dan parameter klinis (eksoftalmos, fisura palpebra), nmun tidak ditemukankorelasi antara penurunan TRAb dengan perbaikan klinis tersebut.

Kata kunci: *Thyroid stimulating hormone receptor antibody* (TRAb), Orbitopati Graves', Eksofthalmos, Methylprednisolone IV

ABSTRACT

The Efficacy of Intravenous on Thyroid Stimulating Hormone Antibody (TRAb) Levels in Patients with Active Moderate-Severe Graves' Orbitopathy

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Background: Graves' orbitopathy (GO) is the most common extra thyroid manifestation in Graves' disease. Thyroid stimulating hormone receptor antibody (TRAb) is a specific biomarker and plays a role in the pathogenesis of OG. Corticosteroid injection is the main treatment for moderate to severe active GO.
Objective: To determine the effect of corticosteroid administration on TRAb levels in active moderately severe OG patients and its relationship to the clinical condition of the patient.
Research Methods: This is a retrospective study using secondary data from patients at RSUP Dr. Sardjito Yogyakarta. Subjects were active moderate-to-severe OG patients and received injections of Methylprednisolone (MP) IV steroids at a cumulative dose of 3 grams for 6 weeks. TRAb serum examination by electrochemiluminescence immunoassay (ECLIA) method. Clinical data of exophthalmos, palpebral fissure, diplopia was assessed. Test analysis with paired t test and continued with multivariate test linear regression and logistic regression.
Research Results: 23 subjects with a mean age of 36.56 years, female dominant (60.9%). The mean TRAb level decreased significantly after giving MP IV for 6 weeks ($p=0.02$). Exophthalmos and palpebral fissure improvement were statistically significant ($p=0.01$; $p=0.02$). The relationship between TRAb reduction and clinical parameters was not significant ($p>0.05$).
Conclusion: Administration of MP IV at a cumulative dose of 3 grams for 6 weeks was statistically proven to reduce the mean TRAb and clinical parameters (exophthalmos, palpebral fissure), but no association was found between the decrease in TRAb and the clinical improvement.

Keywords: *Thyroid stimulating hormone receptor antibody* (TRAb), Graves' orbitopathy, Exophthalmos, Methylprednisolone IV