

INTISARI

HUBUNGAN DOSIS BROMOKRIPTIN DENGAN PENURUNAN KADAR PROLAKTIN SERUM PADA PASIEN HIPERPROLAKTINEMIA DI RSUP DR SARDJITO

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Latar Belakang: Hiperprolaktinemia merupakan gangguan endokrin yang umum terkait dengan morbiditas seperti hipogonadisme, infertilitas, atau gejala terkait efek massa. Penatalaksanaan hiperprolaktinemia tergantung pada penyebab dan manifestasi klinis yang dialami. Obat-obatan golongan agonis dopamin merupakan terapi lini pertama pasien hiperprolaktinemia disamping terapi lain seperti pembedahan, kemoterapi dan radioterapi untuk kasus refrakter atau yang tidak toleran terhadap obat. Penelitian mengenai efek bromokriptin terhadap hiperprolaktinemia di Indonesia masih sangat terbatas.

Tujuan: Mengetahui hubungan perbedaan dosis bromokriptin terhadap penurunan kadar prolaktin serum pada pasien hiperprolaktinemia di RSUP dr Sardjito.

Metode: Penelitian dengan menggunakan rancangan *cross sectional*. Sampel penelitian adalah pasien hiperprolaktinemia yang mendapat terapi bromokriptin berobat ke poliklinik dan rawat inap RSUP dr. Sardjito dalam rentang waktu 1 Januari 2016 sampai dengan 31 September 2023. Analisis statistik mengetahui perbedaan kadar prolaktin sebelum dan setelah pemberian bromokriptin digunakan tes *Wilcoxon* dilanjutkan menilai hubungan dosis bromokriptin dan penurunan kadar prolaktin serum dengan uji *Spearman*, sedangkan untuk menguji perbedaan antar kelompok dosis menggunakan uji *Kruskal-Wallis*. Penilaian antara variabel perancu dan kadar prolaktin dinilai dengan uji *Mann Whitney*. Nilai $p < 0.05$ dianggap bermakna secara statistik. Variabel perancu yang memiliki hubungan bermakna dengan perubahan kadar bromokriptin pada analisis univariat ($p < 0.05$) dilanjutkan dengan analisis multivariat.

Hasil Penelitian: Total subjek penelitian sebanyak 31 pasien dengan jumlah laki-laki 7 orang (22,6%) dan wanita 24 orang (77,4%). Penurunan kadar prolaktin didapatkan median 35,2 ng/mL. Dosis harian bromokriptin didapatkan median 5 mg dengan rentang dosis 1,25-10 mg. Tindakan yang dilakukan pada subjek selain pemberian bromokriptin, yaitu operasi berjumlah 2 orang (6,5%) dan tidak dilakukan operasi berjumlah 29 orang (93,5%). Uji *Wilcoxon* kadar prolaktin sebelum dan sesudah terapi bromokriptin $p = 0,003$. Uji *Spearman* menunjukkan hubungan negatif antara dosis bromokriptin dengan penurunan kadar prolaktin yang ditunjukkan $r = -0,255$ dan $p = 0,166$.

Kesimpulan: Terdapat hubungan negatif antara dosis bromokriptin dengan penurunan kadar prolaktin serum pada pasien hiperprolaktinemia di RSUP dr Sardjito.

Kata kunci: hiperprolaktinemia, bromokriptin, agonis dopamin

ABSTRACT

ASSOCIATION BETWEEN BROMOCRIPTINE DOSE WITH PROLACTIN LEVEL REDUCTION IN PATIENT WITH HYPERPROLACTINEMIA AT SARDJITO HOSPITAL

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Background: Hyperprolactinemia is a common endocrine disorder associated with symptoms such as hypogonadism, infertility, or mass effect symptoms. The management of hyperprolactinemia depends on its causes and clinical manifestations. The first-line treatment for hyperprolactinemia is usually dopamine agonists. Additional modalities such as surgery, chemotherapy, or radiotherapy may be used in refractory cases or when the patient is not tolerant to medications. There are still limited studies examining bromocriptine's effectiveness in treating hyperprolactinemia in Indonesia.

Objective: To determine the association between bromocriptine in various dosages and serum prolactin level reduction in patients with hyperprolactinemia at Sardjito Hospital.

Method: This study is a cross-sectional design which includes patients with hyperprolactinemia receiving bromocriptine medication at the outpatient polyclinic facilities or hospitalized at Sardjito Hospital between January 1, 2016, and September 31, 2023. The Wilcoxon test was used in the statistical analysis to evaluate the prolactin levels before and after the administration of bromocriptine, and Spearman's test was used to investigate the association between the dosage of bromocriptine and the decrease in serum prolactin. The Kruskal-Wallis test was used to assess differences between each dose group; The Mann-Whitney test was used to assess the impact of confounding variables on prolactin levels. A statistically significant level was defined as $p < 0.05$. Confounding variables that showed a significant correlation ($p < 0.05$) with changes in bromocriptine levels in univariate analysis were subjected to additional multivariate analysis.

Results: There were 31 hyperprolactinemia patients enrolled in the study: seven men (22.6%) and 24 women (77.4%). The median prolactin level reduction was 35.2 ng/mL. The median daily dose of bromocriptine was found to be 5 mg, with a dose range of 1.25-10 mg. Additional treatment on subjects other than administration of bromocriptine is surgery; two people (6.5%) had surgery, and 29 people (93.5%) did not undergo surgery. Wilcoxon test for prolactin levels before and after bromocriptine therapy $p = 0.003$. The Spearman test showed a negative relationship between bromocriptine dose and a reduction in prolactin levels, as shown by $r = -0.255$ and $p = 0.166$.

Conclusion: There is a negative association between bromocriptine dose with prolactin level reduction in patients with hyperprolactinemia at Sardjito Hospital.

Keywords: hyperprolactinemia, bromocriptine, dopamine agonist