

# THE COMPARISON OF THERAPEUTIC EFFECTS AND THE SIDE EFFECTS IN THE USE OF VARIOUS DOSAGES OF GABAPENTIN ON PATIENTS WITH NEUROPHATIC PAIN AT THE NEUROLOGY DEPARTMENT OF HASANUDDIN UNIVERSITY HOSPITAL IN MAKASSAR

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## ABSTRACT

**Introduction:** The use of gabapentin for the treatment of neuropathic is found to provide a good effect of the therapeutic while the side effects still can be tolerated. This study aims to describe the difference in pain score reduction and incidence of drug side effects in patients who suffering from neuropathic pain receiving Gabapentin therapy of 300 mg in once a day, compared with the use of Gabapentin of 300 mg in twice a day, at the Neurology of Hasanuddin University Hospital in Makassar. The research was conducted at Neurology Department of Hasanuddin University Hospital in Makassar from 19<sup>th</sup> of April 2016 to 8<sup>th</sup> of June 2016. **Methods:** It was a prospective cohort study using 50 samples selected with the consecutive sampling technique. The samples were divided into two groups. The first group (n=25) received Gabapentin of 300 mg in once a day; while the second group (n=25) received Gabapentin of 300 mg in twice a day. Each group was examined in terms of the pain score reduction using the Visual Analog Scale (VAS) and the incidence of side effects using a questionnaire after the first and the second week of the medical treatment. The pain score of the two groups was compared using the Man-Whitney U test (significant at  $p < 0,05$ ), while the incidence of medicine side effects was analyzed using the Chi-square test (significant at  $p < 0,05$ ). **Results:** The results revealed that the use of Gabapentin of 300 mg in once a day and Gabapentin of 300 mg in twice a day for two weeks in reducing pain scores (examined based on VAS) resulted in the value of 4.12 and 4.92 with  $P = 0,000$  ( $P < 0,05$ ). This showed a significant difference between the two groups. **Conclusion:** The use of Gabapentin of 300 mg in twice a day for two weeks, as a therapy of neuropathic pain at Neurology Departement of Hasanuddin University Hospital in Makassar, resulted in a better decrease in pain scores. Meanwhile, side effects with the highest percentage found in the group using Gabapentin of 300 mg in once a day, in comparison with the group using Gabapentin 300 mg in twice a day were drowsiness (80%:92%) and dizziness (68%:56%).

**Keywords:** Neuropathic pain, Gabapentin, Dosage Variation, Pain scores