

ABSTRACT**VALIDATION METHOD OF NEUROPATHIC PAIN
MEASUREMENT INDUCED BY CISPLATIN ON MICE**

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Neuropathic pain occurs as a result of lesions or damage to the peripheral nervous system (Woolf, 2004, Marcus, 2009). The cause of damage to the nervous system can also be caused by radiation, neurotoxins, inflammation, and also chemotherapy for cancer patients. Chemotherapy-induced peripheral neuropathy (CIPN) is a malfunction, inflammation or degeneration of the peripheral nerves caused by the use of chemotherapy drugs. Most of the chemotherapy drugs that cause CIPN, have been used to be developed in research using experimental animals. In preclinic study, cisplatin dose of 2.3 mg / kg in intraperitoneally injected (ip). Injection given for 5 days and followed by 5 days of rest after injection (Lauren et al., 2009). The methods used for measuring neuropathic pain induced by cisplatin were tail immersion test, paw immersion test, hot plate test and cold plate test. The results obtained from the measurement of neuropathic pain with tail immersion tailing method resulted in tail desensitization of the cisplatin group heat compared with the control group. In the measurement by paw immersion method there was a sensitivity of paw to the heat of the cisplatin group compared with the control group. The result of hot plate test method there were four responses seen were the response of standing, licking, rubbing and jumping. For the results obtained from the standing response, there is sensitivity to heat. The result of cold plate test method there were four responses seen are standing, licking, rubbing and jumping. For the standing response there was a sensitivity of paw to the cold cisplatin group compared to the control group. Thus there is a difference in response to cisplatin administration in the paw where it is sensitized and the tail is desensitized. And it can be concluded that the measurement method that can be used to measure neuropathic pain induced by cisplatin in mice is the immersion tail method, immersion paw, hot plate test with response standing and cold plate test with standing response.

Keywords: pain, chemotherapy, neuropathic pain, CIPN, cisplatin