

## ABSTRACT

### **The Effect Of Curcumin On Allodynia Response Of Mice With Oxaliplatin Induced Neuropathy**

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Chemotherapy-induced Peripheral Neuropathy (CIPN) caused by the toxicity of chemotherapy drugs mainly affects the peripheral nervous system. Oxaliplatin is a platinum derivative compound which has neurotoxic side effects. Symptoms that arise as a result of these side effects are often called allodynia such as dysesthesia and paresthesia of the hands, feet and perioral area. Curcumin is a polyphenol compound that has strong antioxidant activity which decreases the production of ROS in nerve cells thereby restoring mitochondrial function. The aim of this study was to investigate the ability of curcumin to decrease the allodynia pain response in neuropathy-induced mice with oxaliplatin. Mice were divided into normal control groups, neuropathic pain induced by oxaliplatin 3 mg / kg, and groups treated with curcumin 30, 60, 120 mg / kg. Mice were injected intraperitoneally with oxaliplatin 3 mg / kg four times a week, then followed by giving curcumin at a dose of 30, 60, 120 mg / kg from day 7 to 14. Behavioral testing with the von frey filament on day 0, - 0, 1, 3, 5, 7, 10, 14, 18, and 22. The results showed that oxaliplatin could induce mechanical allodynia. By raising the 50% withdrawal threshold with curcumin, 30 mg / kg significantly at day 22, 60 mg / kg significantly from day 18, and 120 mg / kg significantly from day 14. With the above experiment, it can be concluded that curcumin administration can reduce the allodynia pain response in oxaliplatin-induced mice.

**Keywords :** CIPN, Curcumin, Oxaliplatin.