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Protective effect of calpeptin on acrylamide-induced microtubule injury in sciatic nerve'

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Highlights

- The models of subchronic acrylamide (ACR) poisoning and calpeptin (CP) intervention have been set up.
- CP has an intervening effect on ACR-induced MT injury in sciatic nerve.
- The mechanism of ACR-induced MT injury is associated with the channel of calpain- PKC/CDK5-MAP2/Tau-MTs.

Abstract

The present study aimed to investigate the protective effect and mechanism of calpeptin (CP) on acrylamide (ACR)-induced microtubule (MT) injury in the sciatic nerve of rats. All rats were divided into four groups (control, CP, ACR, and ACR+CP):1 ml/kg saline, 200 μg/kg CP, 30 mg/kg ACR, and 30 mg/kg ACR plus 200 μg/kg CP were administered to the corresponding rats for 4 weeks through intraperitoneal injection. Body