

Preventive Effect of Chinese Parsley (*Coriandrum sativum*, *Cilantro*) on Aluminum Deposition in ICR Mice

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【Purpose】 The preventive effect of Chinese parsley on aluminum (Al) deposition was investigated in male ICR mice exposed to Al.

【Materials and Methods】 Seven weeks old ICR male mice were exposed to 1000 ppm Al as Al chloride in drinking water for 39 days. Administration of Chinese parsley to mice by gastric intubation was performed for 25 days from 14 days after beginning of Al exposure to the end of experiment. After 39 days, the mice were sacrificed for the comparison of Al distribution. The localized Al in various tissues was analyzed by kinetic differentiation mode of HPLC.

【Results】 After Al exposure, Al was found to accumulate in the brain, kidney and femur. Localized Al deposition in brain was significantly decreased by the administration of 2.4mg/body of Chinese parsley as shown in Fig.1. The similar results were obtained in femur (Fig.2). Surprisingly, Al levels in femur on Chinese parsley administered group were lower than that on control.

【Conclusion】 Orally administered Chinese parsley is effective at reducing the deposition of Al in the tissues. These findings suggest the possibility that Chinese parsley may be useful as a natural antidote for Al intoxication.

Fig.1 Effect of Chinese parsley on Al

Fig.2 Effect of Chinese parsley on Al

concentration in the brain

concentration in the femur

L1(1,2-dimethyl-3-hydroxypyrid-4-one) : a chelating agent used for positive control

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