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Antioxidative Effects of Scolopendra subspinipes

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Scolopendra subspinipes was evaluated for its antioxidative activities by measurements of inhibition on oxygen radical generating enzymes and potentiation on oxygen radical scavenging enzymes. Its anti-lipid peroxidative effect were also estimated.

The extract showed weak inhibitory effects on the activities of aldehyde oxidase and xanthine oxidase which are oxygen radical generating enzymes. The extract inhibited lipid peroxidation by 26.1% against control group at 500mg/kg *in vivo* and by 11.2% against control group at 10mg/kg *in vitro* in a dose-dependent manner, which means this oriental drug may protect the cell damage induced by peroxy lipids. The extract showed dose-dependently the scavenging effect on DPPH radical with 24.8% activity at 10mg/ml. The extract potentiated the activities of superoxide dismutase and glutathione peroxidase, which are oxygen radical scavenging enzymes, by 28.9% and 22.3%, respectively at 500mg/kg. The extract also enhanced glutathione–S-transferase activity by 23.1% at 500mg/kg.

Above results indicate that *Scolopendra subspinipes* can be useful for the protection or treatment of some diseases caused by reactive oxygen species.