MO-02
The protective effect of serum paraoxonase 1 on brain tissue of dichlorvos poisoned rats

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Objective: To study the protective effect of rabbit serum on brain tissue of DDVP.

Methods: 30 rats were randomly divided into 5 groups, and the control group was given intraperitoneal injection of 1 ml/kg dichlorvos-saline. Poisoning group: 15 mg/kg DDVP intraperitoneal injection. PON1 intervention group: PON1 9600 U/kg was intraperitoneally injected into the tail vein 30 minutes before the molds were made, and 15 mg/kg DDVP was intraperitoneally injected 30 minutes later. Conventional treatment group: 15 mg/kg DDVP intraperitoneal injection followed by atropine 10 mg/kg + pralidoxime iodide 45 mg/kg intraperitoneal injection. Combined treatment group: PON1 9600 U/kg was intraperitoneally injected into the tail vein 30 minutes before the molds were made, and 15 mg/kg DDVP was intraperitoneally injected after 30 min, then atropine 10 mg/kg + pralidoxime iodide 45 mg/kg was injected into the abdominal cavity immediately afterwards. Rats were executed after 8 h the molds were made, and serum ChE, CAT activity was detected by light detection. The protein levels of cerebral cortex and hippocampus brain Sod1, Pink1 and Prdx6 were determined by Western blotting.The pathological changes were observed by HE staining.

Results: Serum ChE and CAT indicated the degree of poisoning in each group, and the expressions of Sod1, Pink1 and Prdx6 proved that PON1 had protective effects on cerebral cortex and hippocampal area. The results above can be verified by HE staining.

Conclusion: Rabbit serum PON1 can protect the brain tissue of DDVP intoxicated rats.