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Therapeutic Effect of Hydrogen Injected Subcutaneously on Onion Poisoned Dogs

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Abstract

Introduction: The purpose of this study was to investigate the therapeutic effect of hydrogen on the therapy of onion poisoned dogs.

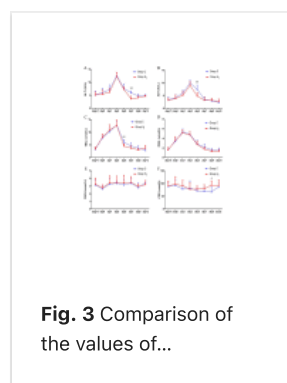
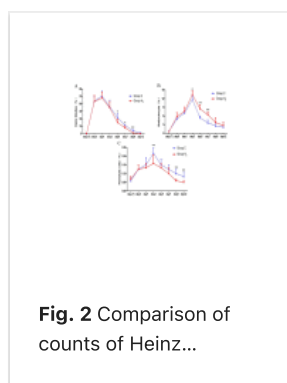
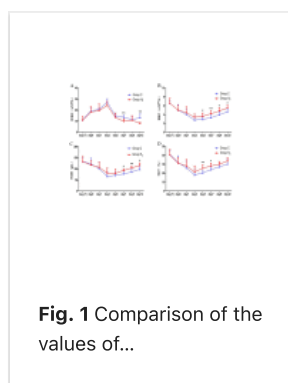
Material and methods: A total of 16 adult beagle dogs were divided into two groups (control and hydrogen) and all were fed dehydrated onion powder at the dose of 10 g/kg for three days. The dogs of the experimental group were given subcutaneous injection of 0.2 mL/kg of hydrogen for 12 days after making the poisoned model successful. Blood samples were collected before feeding onions, one day before injecting hydrogen, and 2 h after the injection of hydrogen on days 1, 3, 5, 7, 9, and 12. Control dogs were not treated with hydrogen.

Results: The levels of leukocyte production, anaemia, red blood cell degeneration which was reflected by the values of Heinz body count, haemolytic ratio, and oxidative products in hydrogen treated group were lower than in control dogs on some days. The capacity of medullary haematopoiesis that was based on reticulocyte counts, and the antioxidation in hydrogen group were higher compared with control group. However, the differences in renal function were not obvious in both groups.

Conclusion: Accordingly, it was concluded that subcutaneous injection of hydrogen could alleviate the symptoms in onion poisoned dogs.

Keywords: dogs; hydrogen; onion poisoning; therapy.

Figures



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