

BENZOIC ACID POISONING IN CATS: CASE REPORTS

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Benzoic acid is used as an antiseptic agent in inflammatory conditions of urinary tract. It is excreted as hippuric acid and renders the urine acidic. Its use in the treatment of ringworm and as a food preservative (Geoffrey, 1977) is also common. In this present paper poisoning due to benzoic acid in cats and its treatment have been reported.

Two Pet cats of 2 - 3 yrs. age suffering from dermatitis, severe itching and patchy alopecia over body surface were treated with benzoic acid powder mixed with pig lard, which was applied on the body surface twice daily by the owner. After 3 days of treatment, the owner brought these animals to the Pet Aid Center. The cats' revealed symptoms of aggressiveness, salivation, jumping backward and striking out with fore limbs. In one cat convulsions were also observed.

On the basis of history and clinical symptoms both the cases were suggestive of benzoic acid poisoning which may be due to licking the lesions treated with the benzoic acid preparation or due to absorption through the skin. Clarke and Clarke (1978) reported that ingestion of 1- 2 gm benzoic acid causes death in few minutes, whereas, the same quantity spread over 48 hours produces mild clinical symptoms only. They reported excess salivation, intermittent blindness, high rise of temperature, convulsion and death in benzoic acid toxicity.

The skin lesions of these cats were washed with normal saline and further application of benzoic acid was stopped. The aggressiveness was reduced with diazepam (2.5 mg/cat). Dextrose saline (5% solution) was given @ 100 ml/cat intravenously. Vitamin B-complex syrup one teaspoon twice daily was also administered as supportive therapy. The symptoms of benzoic acid toxicity subsided within a day and by the next day animals became almost normal. The recurrence of the symptoms was not reported since one week.

The defective detoxification mechanism in cats leads to improper oxidation of benzoic acid and it combines with glycine to form hippuric acid, which is excreted in the urine. If the amount of the benzoic acid consumed is too great for the glycine conjugation mechanism to deal with, it will build up to a toxic level resulting in to benzoic acid poisoning (Clarke and Clarke, 1978).

References

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- Geoffrey, P.W. (1977). *Blacke's Veterinary Dictionary* 12th edn. Adam and Charles Black, Lond p. 80.

