Immobilization of Captive Budgerigars

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Restraint induced excitements are more significant in small cage birds. Selecting budgerigars as a case, a study was conducted to evolve a suitable method of short-time immobilization of small birds so that close medical examinations can be performed and biological sample can be collected without causing undue hardship to them.

Material and Methods

A batch of six numbers of adult budgerigars from a private aviary formed the study materials. Ether soaked in cotton and kept in polythene bags of double-lock type (size 26.2 x 21.2 cms), was used at the rate of 6 ml. per bird. Each bird was transferred from a wire basket cage. The reflexes and duration of anaesthesia were recorded. The same batch of birds were later administered with ketamine orally but at the i/m dose rate of 30 mg./kg. as suggested by Marx and Roston (1996). The drug was squirted into the buccal cavity using a tuberculin syringe.

Results and Discussion

The application of ketamine solution on the buccal surface failed to make any immobilization effect in these budgerigars. However, ether soaked in cotton effected immediate anaesthesia in them.

Ketamine has been recommended for immobilizing birds, both by pariental administration (Beynon & Cooper, 1991) and oral administration (Fowler, 1995). Oral application has often been preferred to reduce stress and anxiety caused during injections.

Failure of immobilization after using the oral application of ketamine might be attributed to the high basal metabolic rate in this small sized birds. Furthermore, effects of ketamine are known to vary with species and individual (Bennett, 1991). During ether inhalation, the state of anaesthesia was assessed as informed by Price (1992). Though the loss of righting reflex is taken as the criteria to assess the state of anaesthesia, respiratory rate was considered important to assess the anaesthetic effects in these budgerigars.

The respiratory rate during general anaesthesia should be deep and regular and the rate should not be less than half that of the normal respiration in conscious birds (Price, 1992). The mean respiratory rate in this study was 71.7 per minute before ether administration and it was reduced to 45 per minute soon after anaesthesia was achieved.

Bennett (1991) recommended that short procedures could be performed on ether immobilized birds with less metabolic consequences and stress to the patient. Monitoring the respiratory rate in field conditions becomes more vital considering the difficulty in gauging the amount of ether inhaled by the birds.

The induction and recovery were faster in all the budgerigars and the main duration of anaesthesia was 4.3 minutes. Being a small sized bird (body weight ranged from 30-38 gms), the increased BMR may be attributed to this rapid recovery. Though usage of popular anaesthetics like halothane in birds is more advantageous (Beunon and Cooper 1991), ether has been chosen in this study because it is cheap, easily available and easily portable despite its highly inflammable property.

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