The use of haloperidol during the transport of adult ostriches

Haloperidol, a tranquilliser belonging to the butyrophenone group of neuroleptics, is used mainly to tranquillise game species that become highly excited during capture and translocation and during acclimatisation in a new environment[1–3,5,11]. Haloperidol can be used to inhibit stereotypic behaviour[4,7,10,16], to decrease aggression in swine[9] and great apes[13] and also to treat feather-pecking in psittacine birds[6,8,12].

Haloperidol was used during transport of ostriches by sea in 4 birds: in 2 cases to treat aggressive males, in 1 case to sedate a male that had to be moved to another compartment, and in 1 case to treat stargazing behaviour in an ostrich female. In each case the drug was administered intramuscularly into the gastrocnemius muscle with a pole syringe because transport conditions did not permit intravenous administration.

Case 1: an ostrich male (estimated weight 120 kg) exhibited aggressive behaviour and tried to mate with another male. He was treated with 15 mg of haloperidol and after approximately 25 min appeared sleepy and calm, with eyelids drooping. No loss of appetite was observed, but aggressive behaviour returned after about 20 h. Treatment was repeated, using 25 mg of haloperidol, 32 h after the first injection. The male did not appear drowsy after the second administration, but aggression was diminished for about 20 h. Aggressive behaviour exhibited 20 h after the second administration of haloperidol was less pronounced than previously. Before off-loading, the male was again treated with haloperidol (20 mg) and, after release on land, normal behaviour returned and the male showed intense interest in female ostriches.

Case 2: an ostrich male (estimated weight 110 kg) exhibited aggressive behaviour towards other male birds, and was observed mating with smaller males. He was treated with 20 mg haloperidol and became slightly drowsy after 30 min. The aggressive behaviour resumed after a period of 20 h but was not as pronounced as before. A third treatment was administered after 3 days with 20 mg haloperidol.

Case 3: a male (estimated weight 100 kg) was treated with haloperidol before being moved to another container. The bird was injected with 25 mg haloperidol, but sedation was not achieved. After about 25 min a further 15 mg dose was injected, which resulted in the bird becoming calm after approximately 20 min. The bird was then blindfolded and then handled by the attendants. Despite efforts to move the bird forward, it reversed and sat down, became very excited and was kicking while sitting on its metatarsal joints. When the handlers released it the bird calmed down.

Case 4: a female ostrich (estimated weight 90 kg) exhibited abnormal stargazing behaviour for 3 days, which has been ascribed to claustrophobia and lack of sufficient light[6], and also appeared very nervous. Treatment with vitamin B complex did not result in improvement. The bird was then injected with 20 mg of haloperidol, but stargazing behaviour continued until release on land, when behaviour returned to normal.

The homosexual behaviour observed in 2 males is not uncommon in ostriches[15] and can be ascribed partly to high population density and partly to an imbalance in the ratio of males to females. Stargazing behaviour as exhibited by the female ostrich has been reported by Samson[14] and can be ascribed to insufficient light. It is suggested that the area per bird must be increased to minimise development of homosexual behaviour. The possibility of transporting groups consisting of females and males in a single container should also be considered to minimise aggressive encounters that can lead to injuries and possible loss of birds. Sufficient light should also be provided to prevent the development of abnormal stargazing behaviour during long-distance transport of ostriches.

As far as can be ascertained from such a small number of birds treated, the use of haloperidol at a dose rate of 15 to 25 mg in ostriches to treat aggression and abnormal behaviour can be recommended. No negative side-effects were observed. As brain dopamine systems are involved in stereotypic behaviour, haloperidol has been used successfully to treat it[7,10]. However, the drug did not have any effect on the stargazing behaviour of the female ostrich. This might have been because the bird was treated only once and received no follow-up injection. Administered continuously and in advance of stressful situations, haloperidol might be useful for prevention of stereotypical behaviour such as stargazing in ostriches.

Owing to increasing export and local transport of domesticated ostriches, it is imperative that the use of tranquillisers and also their effect on the behaviour and welfare of the birds during transport should be investigated.

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