

Pharmacological Treatment Of Feather Picking In Pet Birds

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Feather picking represents a behavioural problem commonly observed in pet birds. The phenomenon of feather picking resembles so called obsessive-compulsive behaviour seen in humans, especially trichotillomania (Bordnick et al. 1994, Stein et al. 1994). Birds chew or pull feathers in the area of the breast or flank and thigh while the feather follicle activity is normal. Some animals preferentially pluck the tail or flight feathers and contour feathers while others target down feathers or both. Owners of affected birds have reported that the problem started with the bird's tendency to exaggerate overall grooming behaviour. The birds may also pull single feathers to play with. This behaviour has been associated with a number of management factors, such as inadequate diet, boredom as well as overstimulation, loneliness, presence of inappropriate sexual partners, separation anxiety, frustration, and attention seeking behaviour which is reinforced by the owner's attention (Roskopf et al. 1986, Johnson 1987, Kennedy and Draper 1991, Cooper and Harrison 1993, Davis 1993). The massive loss of feathers may be regarded as a welfare issue since it is related to inadequate housing conditions. Feather picking can subsequently lead to medical problems, like infections, hypothermia, and haemorrhage (Keiper 1970). Treatment suggestions include an increase in social contact with humans, environmental enrichment, acoustic stimulation (leaving the radio on), provision of interesting toys, spraying of foul tasting substances onto the bird's feathers, indirect punishment using a water sprayer, grinding or notching of the bird's beak, and prevention of picking using plastic collars (Harrison and Davis 1986, Roskopf 1986, Woerbel and Blake 1986, Davis 1991).

The results of an open clinical trial have indicated that the use of clomipramine lead to improvements when used in 11 feather picking birds. However, the bird's response was not as encouraging as one might have expected (Grindlinger and Ramsay 1992). A case report on the use of haloperidol, a dopamine antagonist, in two african grey parrots lead to good improvements. But both birds had to be maintained on the medication, since the picking resumed as soon as the drug was discontinued (Iglauer and Rasim 1993). Therefore, it was aimed to evaluate the effectiveness of another drug used in the treatment of humans suffering from trichotillomania, the selective serotonin reuptake inhibitor fluoxetine.

Fluoxetine (dosage individually calculated with the help of allometric scaling; 2,3 mg/kg SID - 3 mg/kg BID dosing) was prescribed for 24 feather picking birds after clinical examination for exclusion of potential differential diagnosis (history, physical examination, gram stain, blood chemistry, thyroid function, skin scraping and culture, feather biopsy, PDFB, Pylomavirus). The owners were asked to complete a questionnaire on a daily basis, including the birds development and potential problems related to treatment.

A large variety of breeds was presented, including african greys (6), moluccan cockatoos (4), blue crown conjures (3), quaker parakeets (2), indian ring necked (2), and 1 white eye conjure, gold capped conjure, electus parrot, pacific parrotlet. blue and gold

macaw, sulphur crested cockatoo, and amazon parrot. The majority of the birds were bred in captivity and hand reared (20). The gender of 11 birds was not determined, 5 birds were female, 8 male. Most animals (18) were kept in the same room with other birds. The examined birds were allowed to leave the cage for an average of 6 hours (+/-2.3) per day. All cages were equipped with perches, food dishes and a large variety of toys. The cage sizes vary from 494 cm³ to 1,815,848 cm³ with an average of 114,415 cm³. The birds were left alone for about 10 hours per day. The onset of the problem was mostly observed around 12 months of age (10 birds) or obviously related to a sudden change in the bird's environment (6 birds). The areas affected by picking and chewing include legs (6), tail (4), wings (4), abdomen (3), chest (3), back (2), axial region (2), and generalised feather loss (6). Aside from feather chewing and picking, 6 birds are reported to engage in self-mutilative behaviour, mainly affecting the skin and muscle tissue in the area of the chest and distal portion of the wings.

10 birds did not receive treatment for a minimum study period of 4 weeks and were therefore excluded. 12 of the remaining birds showed significant improvements on the drug. The first changes were observed after approximately 2 weeks. In all cases, the owners reported that the birds relapsed after about 4 weeks. The picking decreased again after the daily dose of fluoxetine was increased individually. However, this effect lasted only for approximately 2 more weeks until the picking increased again. Three owners decided to discontinue treatment since long-lasting improvements were not achieved. None of the birds were weaned off the drug successfully within the monitored study period of 6 months. Four owners observed side effects. These included 2 cases of frequent sneezing 1 week after treatment was started, and 2 cases of temporary ataxia and lethargy, observed approximately 1 hour after the medication was applied. One bird had learned a vocabulary of 250 words, including songs and poems. After the bird was put on fluoxetine, the owner observed that its vocabulary reduced and it forgot the sequences of songs it had been able to reproduce without problems previously. These problems disappeared after treatment was discontinued. The bird (african grey, 3 years) died after 9 weeks of treatment. A pathological examination did not reveal any findings that might relate to the medication.

The birds presented for feather picking were generally kept under good housing conditions, especially provision of intra and interspecific social contact, dietary management, cage size and daily exercise. It is unlikely that management factors play a major role in the development of feather picking in the presented cases. It is interesting that the onset of the problem occurred mostly between 10 and 13 months of age or shortly after abrupt changes within the household. But in these cases, the removal of the potentially disturbing factor itself did not help to improve the situation later on.

The use of fluoxetine seems to improve feather picking only for a limited period of time. Positive effects are achieved after increasing the dosage. However, improvements are not maintained over extended periods and are reversed once it is attempted to wean the birds off the medication. These effects may be related to a lack of information regarding therapeutic drug levels and dosages for birds, as well as metabolic differences between birds and mammals regarding physiology and pharmacokinetics, since the use of clomipramine and fluoxetine is leading to far better results for the treatment of compulsive behaviour problems in other in species such as the dog.

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