

Second Edition



Hugues Beaufrère
Jennifer E. Graham

BLACKWELL'S FIVE-MINUTE VETERINARY CONSULT AVIAN



Includes
client education
handouts,
algorithms, and
procedure guides
on a companion
website

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BLACKWELL'S FIVE-MINUTE VETERINARY CONSULT

AVIAN

Second Edition

Edited by

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 Fecal Wet Mount and Gram Stain
 Figure of Eight Bandage
 Handling and Restraint
 Indirect Blood Pressure Monitoring
 Ingluvial gavage



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Intramuscular Injection
Intraosseous Catheter
Intravenous Catheter
Microchip Placement
Nasal Flush
Oral medications
Sinus Aspiration
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Tracheal Swab or Wash
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Client Education Handouts

Airborne Toxins
Angel Wing
Arthritis
Aspergillosis
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Overgrown Beak and Nails
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Oophoritis
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Polyomavirus in Psittacines
Regurgitation and Vomiting
Renal Disease
Rhinitis and Sinusitis
Sick-Bird Syndrome
Ten Things Your Parrot Wants You to Know about Behavior
Trauma



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FEATHER-DAMAGING AND SELF-INJURIOUS BEHAVIOR



BASICS

DEFINITION

Self-injurious behavior includes all behavior in which the bird damages its own tissues, typically by using its beak. In case of feather-damaging behavior, the self-inflicted damage is directed to the feathers and can involve chewing, biting, plucking, and/or fraying of coverts, down feathers, remiges, and rectrices. Typically, the feathers of the head and crest remain unaffected, as these are inaccessible to the bird's beak. In case of self-mutilation or automutilation, the skin and/or deeper structures are also affected. While automutilation and feather-damaging behavior are both classified among self-injurious behaviors and some overlap in causes may exist, the behaviors should be considered as two separate entities.

PATHOPHYSIOLOGY

In general, three underlying pathophysiological mechanisms should be taken into consideration for self-injurious behavior: (1) Maladaptive behavior, resulting from attempts of the animal to cope with a suboptimal or inadequate environment, which is lacking the appropriate stimuli needed and/or in which aversive stimuli or stressors are present. (2) Malfunctional behavior, resulting from an abnormal psychology, brain development, or altered neurochemistry, which may have developed as a result of the bird's living conditions, particularly in early life. (3) Behavior performed to alleviate pain, pruritus, irritation, or other type of discomfort resulting from an underlying medical (physical) problem.

SYSTEMS AFFECTED

Behavioral: Birds may spend more time on preening and/or preen more intensively, which results in damaged feathers and/or skin; other problem behaviors including anxiety and fear-related behavior, excessive vocalization, sexual behavior, or abnormal repetitive behaviors (such as stereotypic behavior) may also be seen.

Skin/exocrine: Feathers may be pulled and/or frayed resulting in generalized or patchy alopecia in areas that are accessible to the bird's beak. Covert and/or down feathers are the main target, although remiges and/or rectrices may be targeted as well. Skin damage and/or (secondary) infections may also be present.

Endocrine/metabolic: Metabolic needs may be increased due to lack of insulation and decreased thermoregulatory abilities.

Hemic/lymphatic/immune: Blood loss may occur in birds with self-injurious behavior.

GENETICS

Genetic factors are thought to be involved because of species predilections. Results of a study in feather-damaging Amazon parrots demonstrated high heritability estimates, thereby supporting the hypothesis that a genetic basis may indeed exist.

INCIDENCE/PREVALENCE

Feather-damaging behavior is estimated to occur in 10–15% of captive parrots.

GEOGRAPHIC DISTRIBUTION

N/A

SIGNALMENT

Species predilections: Although feather-damaging behavior may occur in any parrot species, grey parrots (*Psittacus erithacus*), Eclectus parrots (*Eclectus roratus*), cockatoos (*Cacatua* spp.) and conures (*Pyrrhura* spp.) appear particularly prone. The condition is seemingly less common in budgerigars (*Melopsittacus* spp.). Aside from parrots, the condition may also be observed in other bird species, including birds of prey, of which the Harris hawk (*Parabuteo unicinctus*) is noted as a highly susceptible species. Similar to feather-damaging behavior, automutilation can occur in any species, but specific species predilections have been associated with specific mutilation syndromes. For example, (ventral) propatagial mutilation is commonly observed in grey parrots; sternal mutilation is commonly seen in cockatoos, particularly the umbrella (*Cacatua alba*), rose-breasted (*Eolophus roseicapilla*), and Moluccan cockatoo (*Cacatua moluccensis*); wing-tip mutilation is common in cockatiels (*Nymphicus hollandicus*); lovebirds (*Agapornis* spp.) are predisposed to axillary and tail-base mutilation; and Amazon parrots (*Amazona* spp.) and monk parakeets (*Myiopsitta monachus*) are prone to mutilate the feet and neck or chest.

Mean age and range: Although feather-damaging behavior may occur at any age, it has been suggested that the age of onset lies around the time when parrots become sexually mature. With increasing age, the likelihood of a parrot displaying feather-damaging behavior also increases.

Predominant sex: Feather-damaging may occur both in male and female parrots, with a suggested predilection for the female sex.

SIGNS

General Comments

Feather-damaging behavior is usually self-inflicted, but in some cases it can be directed to cage mates or nestlings. Severity of self-injurious behavior may vary from mild or localized feather damage or alopecia to severe forms with generalized feather damage, alopecia and/or self-mutilation.

Historical Findings

The most noticeable sign in birds with feather-damaging or self-injurious behavior is the presence of featherless areas and/or skin damage. Owners may note the bird plucking, biting or pulling its feathers or damaging its skin, but the behavior may be difficult to distinguish from normal preening and may also occur when the owner is not present. Extensive history taking is needed to identify potential underlying medical and/or behavioral causes, and should include information about the self-injurious behavior (onset, duration, clinical course, conditions under which it occurs), possible other behavior or medical problems, and the bird's general condition, as well as a detailed description of the bird's living environment (e.g. housing, enrichment, nutrition) and prior history (incl. rearing conditions).

Physical Examination Findings

Presence of featherless areas and/or damage to the feathers (fraying, chewing) and/or skin. Feathers are mainly plucked in the easy accessible regions of the neck, chest, flank, inner thigh, and ventral wing surface; feathers of the head and crest are typically unaffected as these are inaccessible to the bird's beak. Contour and down feathers are usually affected, but some birds may also damage the tail and flight feathers. In some birds with skin damage, secondary infections and/or hemorrhage may be present. Location, extent, and type of feather and/or skin damage, as well as any other abnormalities found during the physical examination should be noted, as these may provide clues towards the potential underlying cause, thereby emphasizing the importance of conducting a thorough and systematic hands-on examination.

CAUSES

Numerous causes for feather damaging and/or automutilation have been reported. However, a definitive causation is not always clear or unambiguous. In essence, any disease or condition causing pain, pruritis or other type of discomfort could initiate self-injurious behavior.

Underlying medical conditions: Some medical underlying diseases leading to self-injurious behavior include ecto- and endoparasites (e.g. *Knemidocoptes*, feather or quill mites, lice, *Giardia*, *Spiroplasma*, protozoal infection, particularly in cockatiels); bacterial or fungal dermatitis and/or folliculitis (including *Staphylococcus*, *Aspergillus*, *Candida*, *Malassezia* spp.); viral infections such as polyomavirus, PBFD (circovirus) and bornavirus; infectious skin and/or feather disease (bacterial, fungal, viral). Skin neoplasia (e.g. xanthoma, lipoma, squamous cell carcinoma). Nutritional deficiencies (e.g. hypovitaminosis A) and/or dietary imbalances. Low humidity levels, lack of

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