FELINE INAPPROPRIATE ELIMINATION: UNRAVELING THE MYSTERY

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Individual details can have a dramatic impact on the diagnosis, treatment recommendations and final outcome of feline elimination cases. An overview of information related to feline elimination problems is included here for your review. In addition, this presentation will cover a method of prioritizing treatment recommendations based on the diagnosis, and will help to clarify the clinical presentations for which each recommendation is likely to be beneficial.

Elimination problems are extremely common in households with domestic cats, accounting for almost 57% of cases presented at one behavioral referral institution\(^1\). These cases can be a source of frustration for the clinician when the diagnosis is not immediately clear or when there are multiple overlapping diagnoses. However, they can also be extremely rewarding when an accurate diagnosis is made and the patient responds well to specific and appropriate recommendations.

Elimination problems can generally be divided into three main categories.

- Secondary to medical problems
- Marking behavior
- Housesoiling (periuria/perichezia)

Although many cases fit neatly into one of these categories, it is also possible to have overlapping diagnoses or other confounding factors that increase the difficulty of making an accurate assessment.

Medical:
There are several recent studies exploring the prevalence of arthritis and degenerative joint disease in cats\(^2-4\). These conditions can make it difficult for cats to gain access to the box or may cause pain during elimination. Obesity can cause similar problems, making it difficult for a cat to access the box or causing discomfort during the elimination process. Conditions that affect urine volume such as diabetes mellitus or renal insufficiency can affect elimination patterns by increasing the amount of excrement in the litter box or by increasing the urgency associated with elimination. Gastrointestinal conditions such as diarrhea or constipation can also have similar effects on elimination patterns. Several other studies have characterized conditions affecting the lower urinary tract\(^5-7\) and their influence on feline elimination patterns\(^8\).

Marking behavior:
This can occur in both male and female cats and is typically characterized by deposition of urine on vertical surfaces; locations for urine deposition are socially significant which emphasizes the importance of this behavior in social communication for this species. Marking can also include horizontal deposition of urine or the use of stool (middening) although these are much less common. Urine marking has been associated with territorial behavior and with anxiety or stress\(^9\). Successful treatment of marking behavior may include environmental management\(^10\), behavior modification to address social issues between cats in the home, pheromone therapy\(^8,11,12\) or psychopharmacological therapy\(^13-17\).
Housesoiling:
This occurs when a cat performs the normal, functional elimination sequence of evacuating their bladder or bowels but in a location other than the litter box. This may involve urine or stool but is not generally considered as form of communication. A cat with periuria or perichezia may avoid a particular location, substrate or a poorly maintained litter box (aversion) or may consistently use an alternate location or substrate (preference). Cats with elimination problems have been shown to interact less with the litter prior to elimination\(^\text{18}\). Successful treatment of housesoiling may include creating an ideal elimination location, litter box preference testing, appropriate litter box maintenance, resolution of intercat aggression issues and blocking access to previously soiled locations. Treatment with antidepressant or serotonergic medications is generally not indicated for this condition.


