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When Yeast Becomes A Threat: Candidiasis of the Vagina and Lower Reproductive Tract in Dogs and Cats

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Introduction: a familiar yeast, an uncommon problem

Candida is a yeast-like fungus that may live harmlessly on mucosal surfaces, including the external genital region, of healthy animals. Disease develops when local defences or the normal microbial balance are disturbed, allowing the yeast to multiply and damage tissue. Candida albicans is the best-known species, although other Candida species may also be involved. In dogs and cats, candidiasis is uncommon; reports involving the vagina and lower reproductive tract are particularly limited. For this reason, Candida should not automatically be blamed whenever yeast is seen in a genital sample.

The lower reproductive tract includes the vulva, vestibule and vagina. These structures are close to the urinary tract, and their clinical signs can overlap. Vulval licking, discharge, discomfort or frequent urination may arise from vaginitis, urinary tract disease, anatomical abnormalities, foreign material, bacterial infection or other disorders. Accurate localisation and confirmation of the cause are therefore essential.

How does Candida cause disease?

Candida can occur as budding yeast cells and, under favourable conditions, form elongated pseudohyphae or hyphae. These forms can contribute to attachment, tissue irritation and invasion. However, finding yeast on a mucosal surface does not by itself prove active candidiasis. A diagnosis is more convincing when compatible clinical signs occur alongside cytological or histopathological evidence of inflammation and fungal involvement, supported by culture when appropriate.

Predisposing factors described in animal candidiasis include recent or prolonged broad-spectrum antimicrobial use, immunosuppressive disease or medication, disruption of mucosal integrity, diabetes mellitus, urinary catheterisation and other urinary tract disorders. These factors are relevant when assessing a dog or cat with suspected genital candidiasis, but they should be treated as risk clues rather than proof of infection.

Vaginal and lower reproductive tract candidiasis

Confirmed Candida vaginitis appears to be rare in dogs and cats, and the available veterinary literature is much less extensive than that for candidal urinary tract infection. Therefore, clinicians should avoid assuming that human vulvovaginal candidiasis patterns, symptoms or treatment regimens apply directly to companion animals.

Possible clinical signs

When the lower genital tract is inflamed, signs may include vulval licking, redness, local discomfort, scooting, reluctance to sit, and vaginal discharge. Discharge may be scant or more noticeable and is not specific to Candida. Odour, colour and consistency alone cannot reliably distinguish fungal infection from bacterial vaginitis, urinary contamination, foreign bodies, trauma, juvenile vaginitis, oestrous changes or reproductive disease. In cats, genital candidiasis is especially poorly characterised; urinary signs or discharge should prompt a broad diagnostic assessment rather than a presumptive fungal diagnosis.

Important differential diagnoses

Common alternatives include bacterial vaginitis, juvenile vaginitis in young dogs, urinary tract infection, vulval skin-fold dermatitis, foreign material, anatomical defects, trauma, urinary incontinence and reproductive tract disease. In intact females, the stage of the oestrous cycle and the possibility of uterine disease must be considered. Purulent or foul-smelling discharge, fever, lethargy, abdominal discomfort or increased thirst warrant prompt veterinary examination, particularly in an intact female because pyometra can be life-threatening.

Lower urinary tract involvement: a key distinction

Candida is more clearly recognised as an uncommon cause of fungal urinary tract infection in dogs and cats. Candidal cystitis may cause signs similar to bacterial cystitis, such as frequent urination, straining, blood in the urine or urinating in unusual places. Yeast detected in urine can represent contamination, colonisation or true infection; sample quality and clinical context matter. A properly collected urine sample, fungal culture and species identification can help distinguish these possibilities. Urinary candidiasis should not be labelled as vaginal candidiasis unless the genital tract itself is independently assessed.

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Diagnosis: confirm before treating

A careful history should cover recent antibiotic or corticosteroid use, diabetes or other chronic illness, urinary catheterisation, previous urinary or genital disease, reproductive status and the timing and character of discharge. Physical examination should assess the vulva and perineal skin, with a vaginal examination when indicated and feasible.

Useful diagnostic steps include:

- Cytology of a properly collected vaginal or vulval sample to look for yeast forms and inflammatory cells; interpretation must account for possible contamination or commensal organisms.
- Fungal culture and species identification when candidiasis is suspected, especially in persistent or recurrent cases. The laboratory should be informed that fungal culture is required.
- Bacterial culture or other tests where bacterial infection or mixed infection is plausible.
- Urinalysis and urine culture from an appropriately collected sample if urinary signs are present; do not rely on a voided sample alone to localise infection to the vagina.
- Biopsy and histopathology in unusual, persistent or ulcerative lesions when needed to establish tissue invasion and exclude other disorders.

Ultrasonography may be appropriate if the examination suggests urinary bladder disease, a mass, an anatomical abnormality or uterine pathology. Imaging does not, by itself, confirm Candida infection.

Management: treat the cause, not just the sample

Treatment should be based on the site and severity of confirmed infection, the Candida species, susceptibility results where available, and the patient's overall health. The evidence base for canine and feline vaginal candidiasis is limited, so a single standard treatment protocol cannot be recommended for every case.

- Address predisposing conditions, such as unnecessary antimicrobial exposure, poorly controlled diabetes, immunosuppressive treatment where modification is medically appropriate, catheter-related risks, or underlying urinary disease.
- Use topical or systemic antifungal therapy only under veterinary supervision and when the diagnosis supports it. Drug choice depends on the infection site, likely tissue penetration, species susceptibility, concurrent disease, and potential adverse effects. Fluconazole (@5mg/kg bwt, orally) is a commonly used option for susceptible Candida urinary infections, but treatment duration and monitoring must be individualised.

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- Avoid empiric human vaginal preparations or home remedies. Products may irritate mucosa, be unsafe if licked, or delay recognition of a different and more serious disorder.
- For suspected urinary candidiasis, culture-guided therapy and correction of predisposing factors are important. Reassess persistent signs. Failure to improve should trigger a review of the diagnosis, culture results, adherence, resistance, anatomy and possible concurrent disease rather than repeated blind courses of antifungals.

Practical take-home messages

- Candida is an opportunistic yeast; its detection alone does not establish disease.
- Vaginal candidiasis in dogs and cats is rarely reported and remains less well characterised than fungal urinary tract infection.
- Vaginal discharge, licking and urinary signs are not specific; localise the problem before choosing treatment.
- Cytology and culture, interpreted alongside clinical findings, reduce the risk of misdiagnosis.
- Look for predisposing conditions and investigate urgent differentials, particularly uterine disease in intact females.
- Use antifungals rationally and monitor the patient; avoid unsupported treatment protocols.

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