Canine Urinary Incontinence

Involuntary urine leakage

- Brain disease
- Senility

Abnormal physical and neurologic examination

Normal (ie, small, empty) bladder, low residual volume

Juvenile dog?

Full diagnostic evaluation and imaging

Normal physical and neurologic examination

Adult dog?

Abnormal urinalysis

If male, rule out prostatic (eg, neoplasia) or urethral disease

Normal urinalysis

Diagnostic workup, treat PU/PD disorder or UTI first

Resolved

Intermittent urine leakage while resting

Ectopic ureter or other anomaly

Congenital urethral incompetence

Surgical or endourologic intervention

Resolved

Trial drug treatment with $\alpha_1$ sympathomimetic (male or female) or estrogenic agents (female)

Incompletely resolved

Good response

Poor or no response

Reassess dose, compliance

Good response

Urethral incompetence confirmed and resolved

Combination drug treatment with $\alpha_1$-sympathomimetic and estrogenic agents (female); testosterone or combination sympathomimetic and testosterone agents (male)

Poor response

Endoscopic bulking agent*

Poor response

Artificial urethral sphincter placement
Collagen is off market; other agents have been used, but definitive studies of agent efficacy and safety are lacking.

PU/PD = polyuria/polydipsia, UTI = urinary tract infection

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Diagnostic Plan
- Signalment
- History and/or observation
- Pattern of incontinence
- Physical and neurologic assessment
- Bladder palpation
- Urinalysis and culture
- Confirmation of diagnosis
- Management of refractory cases
- Trial treatment
- Assessment of response
- Management of concurrent disorders

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