

AILOURIS* paste, a calming supplement for urinary stress in cats

A combination of extracts from California poppy, pumpkin seed and valerian, all traditionally employed for their spasmolytic and soporific properties, with well-known urine acidifier D, L-methionine. Feline lower urinary tract disease (FLUTD) is common in the domestic cat, affecting approximately 1.5% of cats treated in primary veterinary practices. When thorough diagnostic investigation does not reveal a specific cause, the patients are classified as having feline idiopathic cystitis (FIC). As the hypothesis that psychoneuroendocrine factors may be involved in the pathogenesis of the disease has been formulated, the need to approach the psycho-neurological aspect through a novel supplement has emerged.

***AILOURIS < AI-LOU-ROS**

The name is inspired by the Greek word « αἴλουρος », which means «cat» in Herodotus' texts Liddell and Scott. *An Intermediate Greek-English Lexicon. Oxford. Clarendon Press. 1889.*

California poppy extract

Considered an analgesic and sleep inducer in complementary and alternative medicine, while anxiolytic, analgesic and sedative effects have been exerted by *Eschscholzia californica* in *in vivo* studies¹⁻³. Preliminary evidence suggests its components impact on GABAergic and opioid systems⁴ but further research is needed to establish its therapeutic potential. The plausibility of efficacy of this herb is based on longstanding use and experience.

Pumpkin seed extract

The seeds and oil from pumpkin seeds have been used for many years for the relief of difficulties associated with an enlarged prostate gland and micturition problems related to irritable bladder.

The effect of three extracts of pumpkin seed was studied *in vivo* on urodynamics of rabbits⁵. It was concluded that the pumpkin oil could remarkably reduce the bladder pressure, increase the bladder compliance and reduce the urethral pressure.

Although the molecular mechanism of the seed oil for improvement of urinary tract disorders is not well understood, it is speculated that sitosterols content in the oil contributes to alleviate benign prostatic hyperplasia in clinical trials⁶.

Valerian extract

A good number of *in vivo* studies have been reported on the sedative and anxiolytic effect of *V. officinalis*^{7,8}. Several mechanisms of action have been proposed to elucidate its anxiolytic and sedative effects, such as gamma-aminobutyric acid (GABA)-modulation. Doubtlessly, the pharmacological effects of the plant are strongly connected to its phytochemical content. The key compound which appears to be

responsible for the anxiolytic *effect of V. officinalis* root extract seems to be valerenic acid in most cases⁹.

Valerian has been used traditionally in British Columbia, Canada for heart problems, anxiety and motion sickness in pets and other animals¹⁰. It has also been used as an olfactory stimulation on cats and dogs in stressful situations, and has been shown to affect behavior and reduce vocalization and movement^{11,12}.

D, L- methionine ^{13, 14}

Prophylactic measures that have been recommended to minimize or prevent recurrence of feline lower urinary tract disease include urine acidifiers, like D, L- methionine, with the purpose of altering urine struvite supersaturation, since struvite crystalluria and urolithiasis play a primary role in the etiopathogenesis of FLUTD. This may be correct in some instances, but does not apply to all cats with lower urinary tract disease, especially those with feline idiopathic cystitis (FIC).

Crystals of struvite are reported to have a greater tendency to form when urine pH is greater than 6.8; however, they may be observed in acid urine. Increased solubility of struvite crystals in acid urine has led to the widespread use of urine acidifiers in an attempt to prevent their recurrence. Dosage of urine acidifiers should be individualized according to animal and diet with the urine pH monitored and maintained at 6.5 or less.

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