

Inflammation of the vaginal mucosa. Often accompanied by vestibulitis. The reported incidence varies. No racial predisposition.

FORMS OF VAGINITIS

Juvenile: 40-52% of the cases¹. Minimal or no clinical signs^{2,3,4}.

Little information on the causes and several hypotheses^{4,5,6}.

Adult: Clinical signs: vulvar discharge of variable appearance (Fig. 1), vulvar licking^{3,4}. Etiology (Table 1).



Figure 1. Vulvar discharge

ETIOLOGY IN ADULTS	
Bacterial infection	Pathogens: <i>Brucella canis</i> Bacterial vaginitis is frequently caused by an opportunistic microbiota infection. Usually secondary to predisposing factors
Viral infection	Herpesvirus canine
Disease and /or congenital or acquired malformation of the reproductive system	Anatomical abnormalities; vaginal atrophy hyperplasia; accumulation of mucus or urine; enlargement of the clitoris; trauma; neoplasia
Urinary tract diseases	Urinary incontinence and infection
Drugs	Mibolerona; antibiotics
Vaginal foreign body	Spike, stone
Systemic diseases	Diabetes mellitus, systemic immunosuppression
Stress	immunosuppression
Dermatological diseases	Atopy (allergic process), Perivulvar dermatitis
Idiopathic vaginitis	

Table 1. Etiology of adult vaginitis^{1,2,4,5,6}.

DIAGNOSIS

Medical history, clinical and gynecological examination (vulvar inspection, discharge, digital vaginal examination, vaginoscopy, cytological examination (Fig. 2), vaginal bacterial culture, urinalysis and bacterial culture, biopsy and others)^{1,2,3,4,5,6}.



Figure 2. Cytological examination of a vaginitis.³

TREATMENT

Juvenile: Vaginitis resolve spontaneously around the first oestrus⁴.

Controversy: first estrus before castrating^{2,5,6}. More studies are needed.

- **Estrogen systemic or topical⁴.**

- **Antibiotics:** not often succeed.

Adult: Detect predisposing factors (Table 1) if it's possible. In 73% of cases, the disease resolves regardless of therapy^{1,3}. Different treatments depending on the etiology (Table 2).

PROGNOSIS

With proper treatment, the prognosis is favorable⁵. Most cases resolve after correcting the predisposing cause. The most difficult cases to treat are those due to anatomical abnormalities³. Adult idiopathic vaginitis often resolves, but requires more treatment time⁶.

ADULT TREATMENT

Bacterial infection	Systemic and/or local antibiotic, antiseptics, autovaccines, probiotics
viral infection	Non specific treatment
Disease and /or congenital or acquired malformation of the reproductive system	Surgery
Urinary tract diseases	Synthetic estrogens, adrenergic agonist
Drugs	disruption of therapy
Vaginal foreign body	Surgery
Systemic diseases	according to the disease
Dermatological diseases (atopy)	Antihistamines, corticosteroids
Idiopathic vaginitis	Surgery , urinary incontinence treatment

Table 2. Treatments for adult vaginitis^{1,2,3,4,5,6}

DISCUSSION AND CONCLUSIONS

1. There are few current studies on vaginitis. Furthermore, the existing literature shows a wide disparity of views among authors.
2. Most authors agree that a lot of cases of vaginitis are idiopathic and determine risk factors can be challenging.
3. Frequently, infectious, predisposing and behavioural factors are involved in this sickness (Fig.3). These three agents influence each other increasing the difficulty for a suitable diagnose.
4. In many cases, treatment with antibiotics allows momentary resolution. While the primary factor is not resolved, vaginitis will recur. It's advisable to treat at the same time with probiotics.
5. Further studies are required in order to verify the hypothesis of the advantageous situation of neuter juvenile female dogs with vaginitis.

More research is needed to comprehend the pathophysiology of vaginitis. It is fundamental to improve the identification of triggering substances, microbial agents, vaginal anatomical abnormalities, current systemic diseases as well as potentially atopy. For that reason, professionals will have an accurate view of the issue and, subsequently, perform a better treatment of vaginitis.

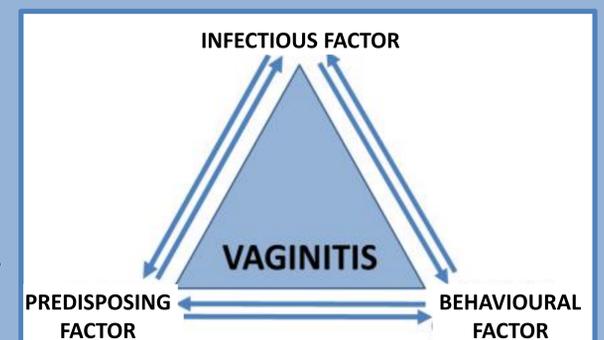


Figure 3: interrelation of factors affecting vaginitis

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