

Acute Inflammatory Marker in Canine and Feline



Real-time Diagnosis of Inflammation in Vivo

- **cCRP (Canine C-Reactive Protein)**
- **fSAA (Feline Serum Amyloid A)**

Health
Educational
Propaganda

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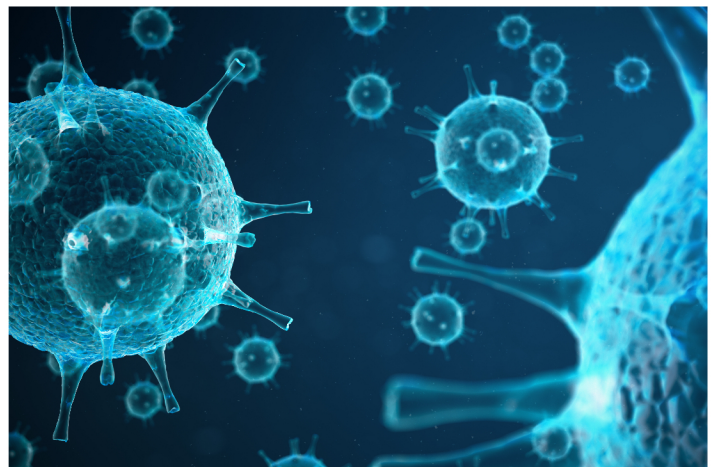
An Overview of cCRP/fSAA



What are cCRP/fSAA?

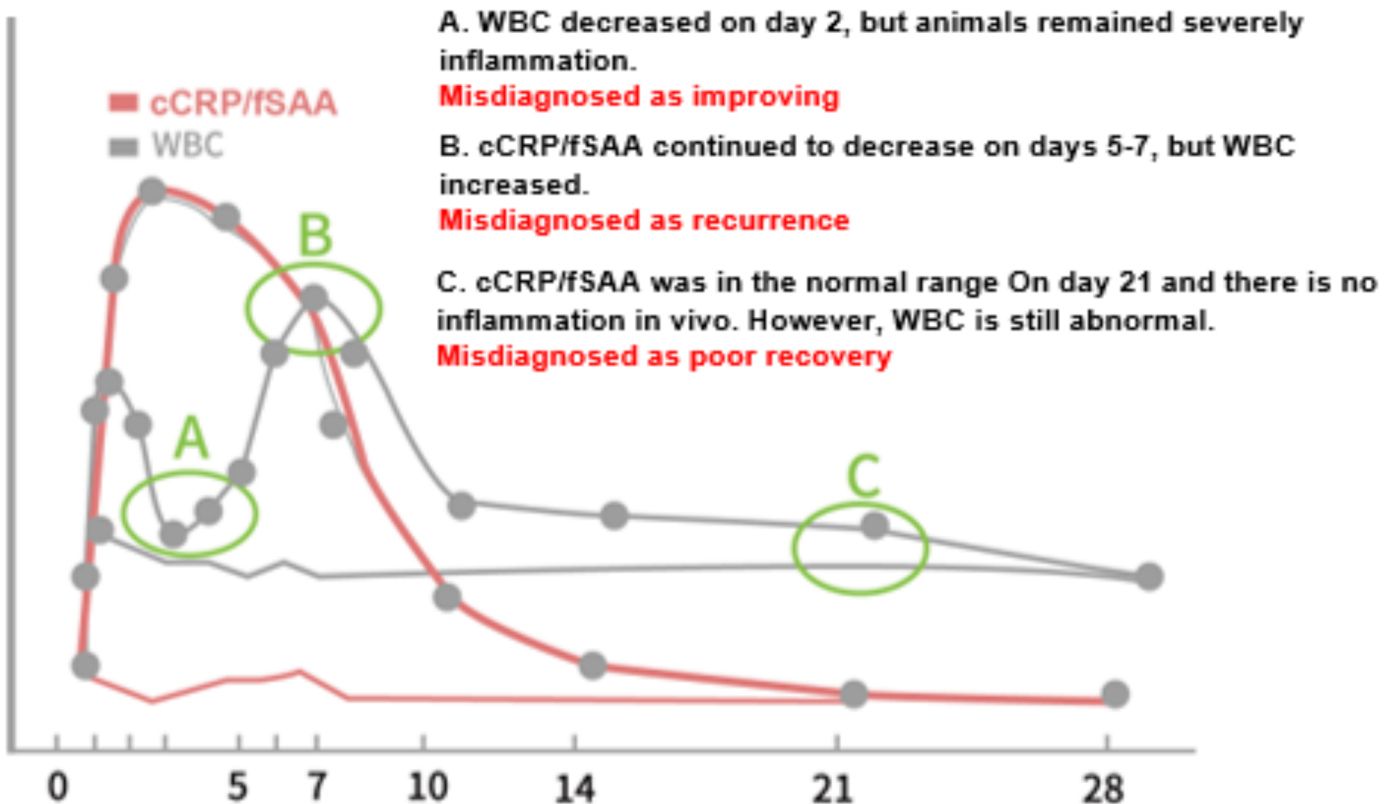
Both cCRP and fSAA are the APPs (Acute Phase Protein). They are the highly sensitive marker of acute inflammation but no specificity.

When systemic inflammation occurs, APPs reaction is more rapid than leukocytes. APPs decrease with treatment, so APPs are positively correlated with disease duration. In clinical, APPs are very suitable for diagnosing, monitoring the inflammation and prognostic assessment.



cCRP/fSAA is more suitable as an inflammatory marker than leukocytes (WBC)

- ✓ cCRP/fSAA are respectively the major APPs in dogs and cats.
- ✓ Levels of cCRP/fSAA in healthy dogs and cats are extremely low.
- ✓ When inflamed, cCRP/fSAA response is faster than WBC and they are positively correlated with disease duration.
- ✓ It is not easily affected by anti-inflammatory drugs.
- ✓ CRP/fSAA are serve as the prognostic assessment of inflammation.



When to Use cCRP/fSAA?

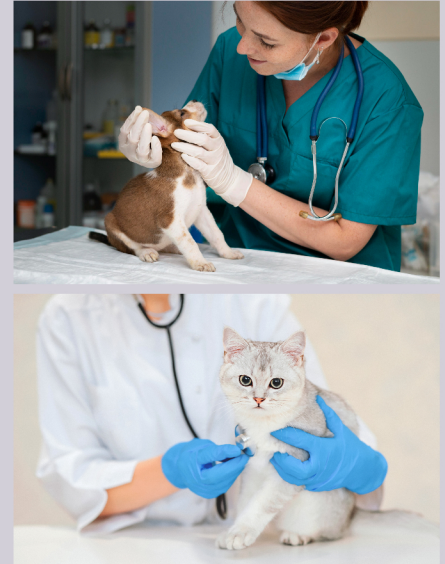
Routine test at first diagnosis

Systemic inflammation assessed

Monitoring after inflammation treated

Prognostic assessment of inflammation

Recovery after surgery



Indications

Diseases that cCRP may increase	Diseases that fSAA may increase
Pyometra	Dermatitis
Sterile nodular panniculitis	Rhinitis
Acute Pancreatitis	Myocarditis
Rheumatoid arthritis	Hepatitis
Multiple arthritis	Gastroenteritis
Autoimmune hemolytic anemia	Cholangitis
Acute lymphoblastic leukemia	Feline Infectious Peritonitis
Malignant histiocytosis	Nephritis
Bronchopneumonia /Pneumonia	Cystitis
Chronic hepatitis	Diabetes
Intestinal obstruction	Renal Failure
Surgical trauma	Trauma
Terminal cancer	Terminal cancer
Microbial infection	Microbial infection

Note. The change of cCRP/fSAA is slightly difference between different breeds and different individuals.

◆ Reference

1. Evidence of an acute phase response in dogs naturally infected with *Babesia canis*. *Vet Parasitol.* 2007 Mar 31;144(3-4):242-50.
2. Serum acute phase protein concentrations in female dogs with mammary tumors. *J Vet Diagn Invest.* 2009 Mar;21(2):214-9.
3. C-reactive protein concentration in dogs with various diseases. *J Vet Med Sci.* 2008 Feb;70(2):127-31.
4. Acute phase proteins in dogs and cats: current knowledge and future perspectives. *Vet Clin Pathol.* 2005 Jun;34(2):85-99

Test Result

AmiShield Canine CRP

Result	Range	Significance
	0.1–20 mg/L	Normal
	> 20 mg/L	Abnormal



AmiShield Feline SAA

Result	Range	Significance
	0.1–5 mg/L	Normal
	> 5 mg/L	Abnormal

Normal : Healthy without inflammation.

Abnormal : There may be mild or severe inflammation in vivo. It needs to be combined with symptoms and other detailed tests to clarify the disease. Please cooperate with the diagnosis and treatment of the veterinarian.

Q & A

- Q1. My pet looks healthy, do it need to test the cCRP/fSAA?
- A1. Dogs and cats have the high tolerance to pain. If there is inflammation in vivo, the symptoms cannot be seen. Therefore, we need to confirm whether inflammation occurs in dogs and cats through testing cCRP/fSAA.
- Q2. Can cCRP/fSAA be used to diagnose disease?
- A2. No, it is used for inflammation screening and treatment tracking. Various types of inflammation can lead to abnormal cCRP/fSAA levels, so they are the ideal tool for inflammation screening and treatment tracking.

- Q3. How to test the cCRP/fSAA from pet?
- A3. For blood test, only 0.06 mL sample is required, and the test result can be available after 15 minutes.
- Q4. Does cCRP/fSAA normal mean my pet is healthy?
- A4. It just means that there is no inflammation in vivo. Non-inflammation-related diseases still need to be diagnosed and ruled out by a veterinarian.

