"IN VITRO" DIAGNOSTIC OF ALLERGIC DISEASES

One of the most frequent motives of consultation are the cutaneous illnesses with pruritus (itch) as the main symptom among the ones the allergies are found, for which it is fundamental for the clinic to know how to differentiate them by means of a correct diagnosis to carry out an adequate therapeutic approach

The most common allergic diseases in pets are the allergy to flea bite (), food allergy (FA) atopic allergy or atopy, an important increase of these pathologies in the last years has been observed .

The allergic patients suffer an alteration of its immune system genetic planned through which it reacts in a high way to the contact with some substances called allergens.

The veterinary allergy has crossed a long way in the last 25 years. During the 70´s appears in the market the first "cutaneous test kits" for the diagnostic of the atopy in dogs, and they offered a limited selection of mixed allergens: some pollens, moulds, flea extract and dust house.

The modern techniques of production have permitted to the production companies to improve in a high way the quality of the extracts and the antibodies used in the diagnostic test.

The "in vitro" diagnostics permits to measure the IgE specific antibodies in serum of the patients. It got out in the market in the 80´s. Nowadays Enzymatic methods (ELISA) are being used.

The reliability of these "in Vitro" tests is getting higher and higher, so even supporting the cutaneous test as the reference test, its use is getting lower because it requires a great experience of the veterinary clinic and it is uncomfortable for the animal. On the contrary, the "in vitro" test only needs to take a serum sample that gets to the laboratory and it does not require any suppression period of previous treatments.

1. When can we do the test: patient election, age, year period.

Although the "in vitro" test can be achieve all the year, in some occasions, it is recommended to achieve the tests when the animal presents more symptoms.

It is important to know that patients under one year of age, we can have a case where the animal has allergic symptoms, but the antibody levels are not yet high enough or have not been exposed to the allergens that will cause the allergy pathology to them. That can make us obtain results that can change with time. So we recommend waiting until the animal is one year old before doing the allergy test.

2. Choosing the panel

S.A.T ELISA®: It is a test of screening that tells us if the animal presents antibodies IgE or IgG set against environmental or food allergens, and therefore could be considered allergic, but it does not specify to which allergens. This test results of

utility as a first step in the diagnosis and guides us on the road to go on from that moment.

P.E.T ELISA®: It can be for environmental allergens, food allergens or both. This test details exactly the allergens that are causing the problems in the animal and it gives us clearly the direction forward to an effective treatment. It's used is essential to manufacture a specific immunotherapy for this animal, or to give us the direction to establish an elimination diet. Alergovet recommends to do the two types of panels (environmental and food) since the two types of allergy come together in a high percentage of the cases.

3. Interpretation of results

We cannot forget that the test results are only data inside the allergy diagnostic, and they must be interpreted together with the rest of data in the clinic history, exploration and another complementary test.

The results being a semi-cuantitative technique will be expressed in: Negative, Borderline, Positive and High Positive.

The highly positive and positive results should be interpreted like the most important ones at the moment of planning the processing, and are the ones that should be included in the immunotherapy or in the diets of elimination

The borderline results should be interpreted in function of the rest of the data, not being included normally in the immunotherapy; but if being keeping in mind for any another type of measure. Also they will be considered in case of very young animals, in symptomatic processing to high dose or in animals with clear sintomatology and without other clear positive results.

In the case of food allergies, the positive results will be useful as a base to establish an elimination diet that will confirm us the preliminary diagnostic.

We should not forget that a negative result does not exclude 100% the diagnosis of allergy, since it is said that around 10-15% of the atopic animals present negative results to the detection of high levels of IgE.