

Veterinary Diagnostics

Automated Fluorescence Immunoassay Analyzer **IMMUNO AU10V****USER'S VOICE**Installation
Report
from Japan**On-the-spot diagnosis and immediate treatment for critical hormonal illnesses**

Dr. Masahiko Motooka is the director of Heart Pet Clinic, a veterinary clinic that uses specialist experience in clinical examinations to provide loving care to animals and their owners on a daily basis.

We asked him about the clinical value of the IMMUNO AU10V immunoassay analyzer and 4000V automatic biochemical analyzer when performing clinical examinations.



Heart Pet Clinic
Dr. Masahiko Motooka

**DATA**

Facility name: Animal Hospital Heart Pet Clinic

Location: Gunma Prefecture, Japan

With the AU10V, no time is lost before starting treatment**---Opening of the Clinic**

Dr. Motooka: Before I opened Heart Pet Clinic, I was an examination technical assistant in Gunma University's School of Medicine. I had always loved animals, and I opened the clinic in April 2008 so that I could use my specialist skills in examinations and diagnoses while also being by animals' side as a vet.

---Introduction of the IMMUNO AU10V

Dr. Motooka: People tend to think that hormonal examinations are not primary examinations like ASTs and ALTs, but they are actually critical examinations. The only way to accurately

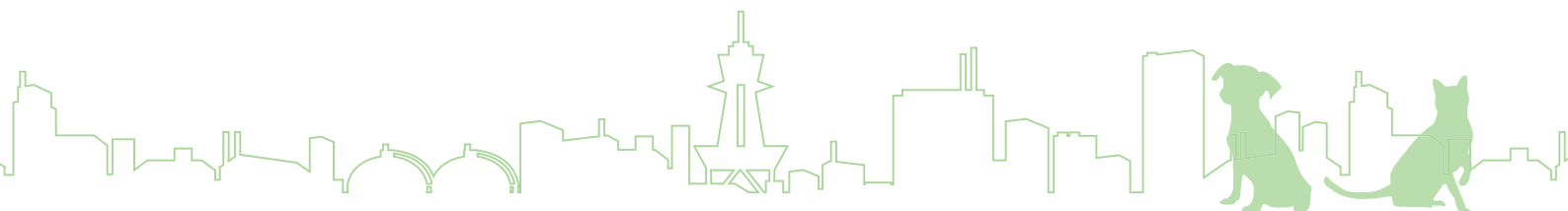
diagnose hormonal illnesses is through examination of hormonal areas such as the thyroid gland or cortisol. If these tests are outsourced to an external laboratory, that two- to three-day wait can cost animals their lives. Such urgent examinations should really be done in clinics, and the AU10V makes that possible. I adopted it because it eliminates the time loss of outsourcing, as well as avoidable administration of drugs.

I outsourced some examinations at first, but now that I've seen how high the AU10V's reproducibility is, I only use the AU10V now.

---How the AU10V has changed Dr. Motooka's workflow

Dr. Motooka: Before I adopted the AU10V, if I suspected that an animal had a critical hormonal illness such as Addison's disease or myxedema (myxedemic coma) resulting from hypothyroidism, I had to draw blood, send it to the external laboratory and start treatment immediately based on what I suspected. Then when the results came back 2-3 days later, I would find out whether or not that was the right treatment. Now all I have to do is draw blood and examine it and I can know the results right away, which means I can now give the right treatment every time. And it only takes 10 minutes for the measurement and 20 minutes for the whole examination. Even if I do an ACTH stimulation test, the results are ready in 90 minutes. This was unthinkable before.

When I administer hormonal drugs, I conduct an examination to make sure that they are working properly. With the AU10V,



I can get the examination results on the same day and adjust the dose after looking at them, which makes things easier for the owners. Some owners were also displeased about having to do a second examination when one had already been conducted. The AU10V has allowed me to reduce examination charges, which has made these owners more amenable to it. For these reasons, our overall number of examinations has increased significantly since I adopted the AU10V.

---Impressions on the AU10V

Dr. Motooka: Being able to treat animals based on actual examination figures is definitely completely different from having to treat them based on suppositions. It backs up my decisions about what drugs to administer, which provides a big relief. In particular, hormonal illnesses have all different symptoms, and every clinical vet has had experiences where they thought an animal had, say, Addison's disease or Cushing's syndrome but turned out to be wrong. In cases like that, it helps a lot to be able to use measurements from examination equipment to decide on the right treatment.

Then there's the fact that vet school textbooks say that hypothyroidism does not often occur in cats, but once I started examining them, I saw that it's actually quite common. I think that because it is not commonly examined, clinical diagnoses are not being made, so it is not being properly detected.

More patients as word spreads about the relief provided by immediate examinations

---A case where the AU10V was particularly helpful

Dr. Motooka: When an animal has a life-threatening illness like Addison's or Cushing's, owners get a fright and take it to the vet right away. With the AU10V, I can do an examination right after drawing blood and start treatment right away if the animal turns out to have Addison's disease. This has improved animals' condition so much that they're able to stand up and walk by the time their owner brings them in again the next day. This has made the owners extremely happy. This has happened multiple times since I introduced the AU10V and it seems that the owners have told people they know. We've been getting considerably more patients.

There is also such a thing as atypical Cushing's, where there are Cushing's-like symptoms or the animal looks like they have it, but these factors don't line up with the examination figures. There have been times when the animal did not have Cushing's symptoms but turned out to have Cushing's, and vice versa. It cannot be diagnosed only by looking, so the AU10V has been extremely helpful. It's helpful when a hormonal disease presents typically, but atypical occurrences often cannot be diagnosed simply by looking, so I think it is extremely important to have examination equipment. It allows vets to be confident that they are giving the right treatment.

Accurate measurement of TSH, a deciding factor in diagnosis of thyroid diseases

Dr. Motooka: Once I started conducting examinations with the AU10V, I noticed that Addison's disease often comes with hypothyroidism symptoms and Cushing's syndrome often comes with hyperthyroidism symptoms. It also means that if there are abnormalities in both the adrenal gland and the thyroid gland, they can both be examined in-house and be treated at the same time.

T4 figures for the thyroid gland can also be in a gray zone. The AU10V allows me to take accurate measurements for TSH when that happens. This is extremely helpful since TSH is often a deciding factor for diagnosis of thyroid diseases.

---Dr. Motooka adopted the 4000V at the same time. Here's how he's using it.

Dr. Motooka: I've combined basic measurement items to create a set (BUN, Cre, T-CHO, GLU, TP, T-BIL, AST, ALT) so that I can catch a wide range of abnormalities. When this set flags something, I conduct an additional examination - for example, I measure ammonia for liver functions and CRP for infectious diseases. The 4000V allows me to get data with a high degree of reproducibility.

And being able to measure ammonia, lipase and CRP is revolutionary in itself. In particular, pancreatitis is life-threatening in dogs, but in the past we had to rely on examinations that only produced rough results through measurements of amylase. It is extremely helpful to be able to measure lipase.

Fast in-house testings provide peace of mind about treatments

---The clinical value of in-clinic examinations

Dr. Motooka: In recent years, the number of animals has declined but the number of vet visits has increased. With this happening, I think it is extremely important for vet clinics to distinguish themselves from the rest. And I think the ultimate factor that sets a vet clinic apart is being able to cure animals. You might think that curing illnesses is a no-brainer for a clinic, but this obvious task is also the most difficult. Saving animals through hormonal examinations is an area where we distinguish ourselves, and I think that in-house testings are critical for this. In-house examinations allow me to get examination data right away, so instead of saying "It's most likely this illness so I'll give the animal this drug", I get to say "Based on these figures, this is the drug the animal needs". I've realized that in-house testings play an important role in providing peace of mind about treatment.