

## Research on the stress of an animal for animal assisted education and therapy — The stress marker of a dog —

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## 動物介在教育・療法における活用動物のストレスに関する研究 —犬のストレスマーカーについて—

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### Introduction

In recent years, the social role which the animal achieves in a human's social life has been greatly increasing.

The degree of stress of practical use animals for animal intervention education, therapy, etc. is important when considering the ethics and welfare of animals.

Although a larger variety of the stress marker regarding stress have been measured than before, there were many the method of stress marker it's the collected blood samples, the samples became aggressive and those methods were not exact.

Then, the researchers examined whether saliva  $\alpha$  amylase would be effective as a stress marker this time while also examining the method of saliva extraction without a non-blood collected-sample.

### Methods

Saliva extraction was carried out in the experiment using the clinically healthy beagle dog in front of a stress experience (fear [induced by bringing a cleaner

close], and generated noise) beforehand, in the midst, and after the experience. Measurement of the saliva  $\alpha$  amylase activity value after saliva extraction used a trial production machine for low- $\alpha$  amylase activity samples.

### Result and Discussion

Regarding the saliva extraction method, it was shown that the method of using a sponge with a handle for saliva extraction could be measured with little saliva. Although saliva amylase reacted sharply to stress attack, and the upward tendency was shown from immediately after the attack, when the attack was canceled, returning to a value close to the beginning of the attack was shown.

The above result showed that the simple  $\alpha$  amylase activity value measurement using saliva extraction was effective as a stress index. Application of this method as a stress index of the animal utilized for animal-assisted education, therapy, treatment, activity, etc. is expected from now on.

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