

RELATIONSHIPS BETWEEN GLUTATHIONE, GLUTATHIONE PEROXIDASE AND CLINICAL LABORATORY PARAMETERS IN ADULT AND SENILE DOGS

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Abstract This study was conducted to determine the relationships between glutathione (GSH), glutathione peroxidase (GPX) and clinical laboratory parameters in adult and senile dogs. Glutathione, glutathione peroxidase activities and other blood parameter in the dog blood was measured. The dogs participated in the study were randomly selected from dogs brought to the Small Animal Teaching Hospital, Faculty of Veterinary Medicine, Chiang Mai University. They were divided into 2 groups. The first group was 20 adult dogs (age between 3 to 6 years old). The second group was 20 senile dogs (age more than 6 years old). The results showed no statistical significant different between glutathione and glutathione peroxidase activities in adult and senile dog ($p=0.775$, $p=0.118$ respectively). There was no statistical significant relationship between glutathione, glutathione peroxidase and other blood parameters. In conclusion, oxidative stress in senile animal might be the result of increasing free radicals, while the antioxidative system was normally functioned. **Chiang Mai Veterinary Journal 2005;3: 21-29.**

Keywords: Dog, Glutathione, Glutathione peroxidase, Clinical laboratory parameters
