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RELATIONSHIPS BETWEEN OXIDATIVE STRESS, HEMATOLOGY AND BLOOD CHEMISTRY IN ADULT AND SENILE DOGS

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Abstract To study the relationships between oxidative stress, hematology and blood chemistry in adult and senile dogs, the malondialdehyde (MDA) was used as oxidative stress indicator. 20 adult dogs (age 3-6 years old) and 20 senile dogs (6 years and older) were included randomly to the study. The study was performed at Small Animal Teaching Hospital, Faculty of Veterinary Medicine, Chiang Mai University. The complete blood count, blood chemistry and MDA levels of adult and senile dogs were analyzed and statistically evaluated using Pearson's correlation. Differences of MDA levels, complete blood count and blood chemistry between adult and senile dog were tested by Student 's T test. The results showed that MDA levels significantly related to neutrophil and monocyte levels in senile dogs. Furthermore, senile dogs had significantly higher of MDA levels than those in adult dogs. *Chiang Mai Veterinary Journal* 2005;3:15-20.

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