

## THE STUDY OF HYPERLIPIDEMIA IN DOGS IN VARIOUS VETERINARY CLINICS OF TIRANA DISTRICT

Elenica Dimço<sup>1</sup>, Jetmira Abeshi<sup>2</sup>, Eglantina Xhemollari<sup>3</sup>

<sup>1</sup>Agricultural University of Tirana, FVM, Albania. Email: elenicadimco@hotmail.com

<sup>2</sup>Agricultural University of Tirana, FVM, Albania. Email: abeshijetmira@yahoo.com

<sup>3</sup>Agricultural University of Tirana, FVM, Albania. Email: eglantina\_xhemollari@yahoo.it

### Abstract

Examination of hyperlipidemia in dogs has clinical interest for diagnosis of several pathologies associated with abnormal lipid metabolism. On the other hand, lipemic serum can interfere with some laboratory methods giving false results for different tests. In the study, 32 dogs of both sexes, different ages and breeds were sampled and their level of lipids in the blood was examined. The samples were collected from dogs with a primary pathology who were expected to have lipid metabolism disorders. Biochemical analyzer with commercial kits and some other simple tests were used for the determination of lipidogram. The lipoprotein lipase activity test showed that hyperlipidemia in dogs is usually a secondary disorder of many pathologies related to lipid metabolism, whereas primary hyperlipidemia is less common in this species. In this study, 31% of samples had increased triglyceride concentration while 19 % had increased the concentrations of total cholesterol. A higher HDL concentration was found in 25 % of individuals and LDL concentration was higher in 12 % of them, compared to reference values. The chylomicrons test results indicated the presence of chylomicron in three dogs (9 %), high level of VLDL in five dogs (16 %) and presence of both chylomicrons and VLDL in high levels in 9 % of samples. As result, the most common and clinically important type of hyperlipidemia in dogs is characterized by an excess concentration of triglycerides in blood. The predominant lipoprotein in dogs is HDL. However, dyslipidemia, characterized by decreased HDL and increase LDL and VLDL fractions, was found in two dogs with chronic renal disease involved in the study during the examination. Hyperlipidemia usually has no noticeable symptoms and tends to be discovered during routine examination or evaluation of other diseases. The results suggest that various lipid disorders can be detected and characterized by performing simple tests such as gross appearance of the serum and chylomicrons test.

**Keywords:** *hyperlipidemia, triglycerides, cholesterol, HDL, LDL, dog.*