

ANATOMICAL POSITION VARIANTS OF THE CANINE PANCREAS ASSESSED BY COMPUTED TOMOGRAPHY



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Di Michele S., Bonazzi M.¹, Fumeo M., Manfredi S.,
Daga E., Miduri F., Gnudi G., Volta A.

Department of Veterinary Science, University of Parma, Italy
1. Casa di Cura Veterinaria San Geminiano, Modena, Italy



UNIVERSITÀ
DI PARMA

INTRODUCTION

The aim of the study is to describe anatomical position variants of the normal canine pancreas with the use of Computed Tomography (CT).

MATERIALS AND METHODS

The database was searched for dogs that underwent CT evaluation of the abdomen for causes unrelated to pancreatic disease. The position of each pancreatic part was evaluated and associated with body weight (>20kg vs <20kg) and chest type (barrel vs deep chested breeds, considering only dogs with a known breed) with chi square test. A $p < 0.05$ was considered significant.

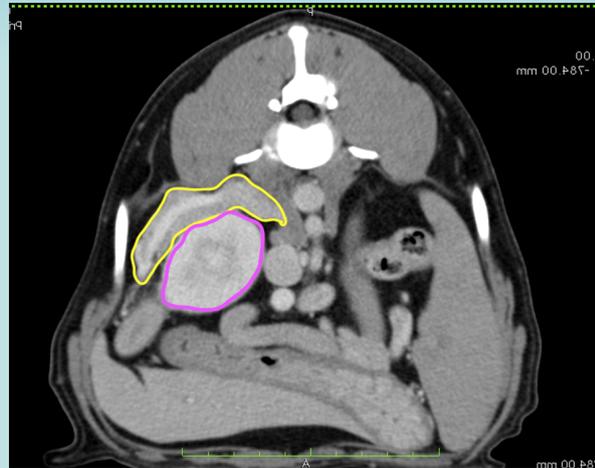


Figure 1: CT scan of the abdomen of an 8-year-old male Golden Retriever dog. The right lobe of the pancreas (yellow) is located dorsal to the right kidney, (purple), in contact to the hypaxial muscles

RESULTS

Two-hundred-sixty-three dogs were evaluated (mean age 9.5 years ± 3.8). The body of the pancreas was adjacent to the portal vein and the pyloric-duodenum junction in the vast majority. The right lobe was adjacent to the ascending colon in 75.4% of cases. In 20% it was not in apposition to the duodenum. The contact with the ascending colon was most frequent in dogs weighted <20kg. The left lobe was in contact to the descending colon in 75%. In 30% it was adjacent to the left kidney and this position was most frequent in dogs weighted <20kg. In 18.5% at least one part of the pancreas was located in the retroperitoneal space, in contact to the left adrenal gland or the caudal vena cava or the celiac artery or kidneys (figures 1-3). The retroperitoneal position was more frequent in deep-chested dogs.

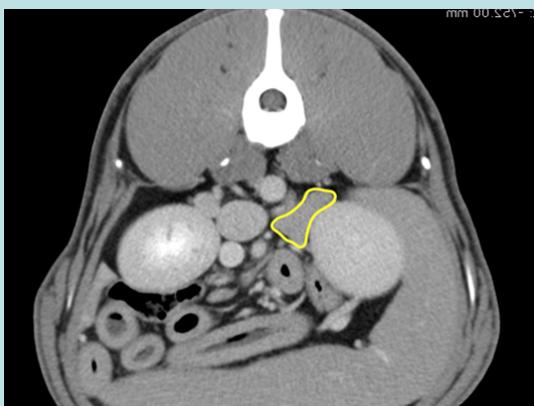


Figure 2 : CT scan of the abdomen of a 2-year-old female American Staffordshire dog. The left lobe of the pancreas (yellow) is located between the left kidney and the left adrenal gland

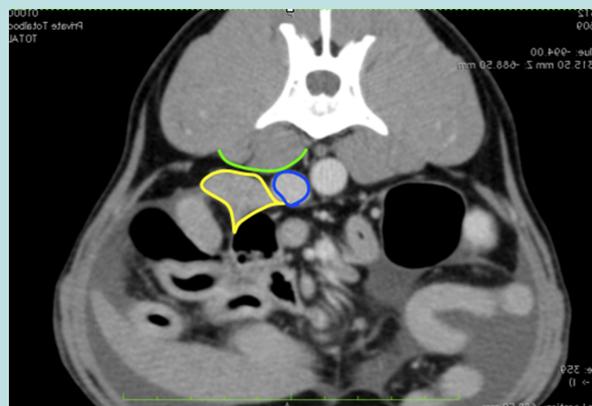


Figure 3: CT scan of the abdomen of a 16-year-old male mixed breed dog with peritoneal effusion. The right pancreatic lobe (yellow) is located in the retroperitoneal space, in contact to the caudal vena cava (blue) and the hypaxial muscles (green)

CONCLUSIONS

CT was useful to describe anatomical position variants of pancreas in dogs. Body weight and chest type may be related to different position of the pancreatic lobes.