

**Summary of the DVM thesis No , Faculty of Veterinary Medicine, Urmia University.**

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**Title of thesis:** Portal Venography by Intrasplenic Injection of Contrast Media in Cat (Splenoportography)

**Summary:**

The hepatic portal venous system is critical for the physiological function of the liver in cats. Vascular anomalies, particularly portosystemic shunts, require detailed structural characterization for effective diagnosis and clinical management. While advanced cross-sectional imaging techniques are available, splenoportography, as an established diagnostic tool, offers unique capabilities in visualizing the portal venous system. However, in cats, technical challenges arise due to the small size and delicate nature of the splenic tissue. This study aimed to evaluate the feasibility and safety of percutaneous splenoportography in healthy cats and to assess its ability to delineate the normal structural pattern of the portal vein.

In this study, ten healthy cats under anesthesia were evaluated using percutaneous splenoportography. Iodinated contrast medium was carefully injected into the splenic parenchyma, and sequential radiographs were obtained to visualize the intrahepatic portal venous system. The animals were closely monitored for potential complications following the procedure.

The results demonstrated that percutaneous splenoportography successfully visualized the intrahepatic portal venous system in all studied cats, allowing clear observation of the main portal vein trunk and its intrahepatic branches. Adherence to specific techniques, such as the method and site of contrast injection and optimal timing of imaging, improved the quality of the images. Ultrasonographic evaluations conducted 24 hours post-procedure confirmed the absence of significant complications, such as hemorrhage. This study indicates that percutaneous splenoportography is a feasible and safe method for visualizing the structure of the portal venous system in cats. Consequently, this study supports the application of splenoportography in diagnosing portosystemic shunts in cats, although it is unable to detect shunts occurring distal to the spleen.

**Key words:** Cat, Normal pattern, Portal vein, Hepatic vein, Contrast medium, Splenoportography