Hypothesis:

Hepatic fat percentage is significantly higher in dogs with congenital portosystemic shunts than in control dogs. Hepatic fat percentage could potentially be valuable as a prognostic marker for CPS therapy.

Proposed Research Accomplished:

Since there is no published information on the quantification of hepatic steatosis in dogs using objective measurements like computer-assisted stereology, we were aiming to quantify the amount and distribution of hepatic steatosis in both normal dogs and those with CPS. Site of hepatic biopsy has been proposed to influence pathologic findings, so we were likewise interested in the relationship between biopsy site (the three major divisions of the liver are the right, central and left) and the amount of fat present.

Results:

We found no significant difference between counts performed by two different observers, which indicates our methods are reproducible. We found no significant difference in histopathologic parameters between the three major divisions of the liver. CPS dogs were found to have significantly more of the <2μm, 2-6μm and 6-9μm sized lipid droplets than healthy dogs.