

## Elevated Triglycerides in Miniature Schnauzers

Idiopathic hypertriglyceridemia appears to be associated with specific breeds, most commonly miniature schnauzers. It is characterized by abnormal accumulation of very low-density lipoproteins (VLDL) or a combination of VLDL and chylomicrons. The aim of this study was to determine the prevalence of hypertriglyceridemia in a large population of healthy miniature schnauzers and to further characterize the condition in this breed. Blood samples were collected from 213 miniature schnauzers, of which 192 were suitable for enrollment based on clinical history. A total of 38 healthy dogs served as controls, 20 of which were purebred dogs consisting of 12 breeds, and 18 of which were mixed-breed dogs. Of the 192 miniature schnauzers, 63 had serum triglyceride concentrations above the upper limit of the reference range, whereas only 2 of the control dogs had serum triglyceride concentrations above this level. The median serum triglyceride concentration in the miniature schnauzer group was 73.5 mg/dL, which was significantly higher than the median serum triglyceride concentration of 55 mg/dL for the control group. Most of the affected miniature schnauzers had mildly increased serum triglyceride concentrations, but a considerable percentage (11.5%) had moderately to severely increased serum triglyceride concentrations. More than 75% of miniature schnauzers  $\geq 9$  years of age had increased serum triglyceride concentrations, and  $> 80\%$  with moderate to severe hypertriglyceridemia were 6 years or older, so both the prevalence and severity of hypertriglyceridemia increased with age. The cause of idiopathic hypertriglyceridemia in miniature schnauzers has not been identified, although an underlying genetic defect is suspected. The almost-even distribution of hypertriglyceridemia between males and females in this study suggests that it is not a sex-linked disorder.

**COMMENTARY:** Idiopathic hypertriglyceridemia has been reported in miniature schnauzers, a breed that is also at risk for pancreatitis. Veterinarians should consider measuring serum triglyceride concentrations in healthy miniature schnauzers to establish a baseline value that can be used for comparison as the dog ages and/or develops an illness. Decreasing dietary fat intake should be considered in healthy miniature schnauzers with moderate to severe hypertriglyceridemia, although the effectiveness of this maneuver for preventing other disorders (eg, pancreatitis) is unknown.—*Dru Forrester, DVM, MS, Diplomate ACVIM*

Investigation of hypertriglyceridemia in healthy miniature schnauzers. Xenoulis PG, Suchodolski JS, Levinski MD, Steiner JM. *J VET INTERN MED* 21:1224-1230, 2007. ■

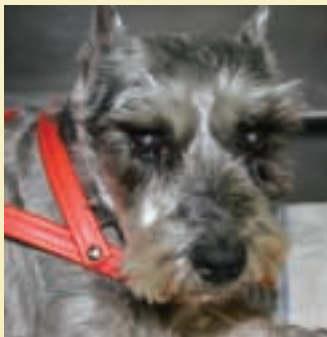


Photo by Elizabeth Harbin