

Hyperlipidaemia in miniature schnauzers

Hyperlipidaemia refers to an elevation in serum triglyceride (TG) and/or cholesterol concentration. High triglycerides cause the serum to be milky (lipaemic) in appearance, whereas high cholesterol does not cause this effect.

Hyperlipidaemic serum occurs most commonly because of collection of post-prandial blood.

When it is present in a fasted blood sample it may indicate hyperadrenocorticism, hypothyroidism, diabetes mellitus, obesity, pancreatitis or the effect of medications such as glucocorticoids and phenobarbitone. Hyperlipidaemia is a commonly encountered idiopathic condition in miniature schnauzers and should be on the differential list for dogs showing clinical signs.

Clinical signs associated with persistent hyperlipidaemia

Dogs are often asymptomatic but may present with anorexia, abdominal pain, diarrhoea, vomiting, lipid deposition in the eye, xanthoma formation, pruritis, alopecia and CNS signs.

Clinical signs generally occur when triglycerides are > 5.6 mmol/L, however, many dogs may have higher concentrations and be asymptomatic.

Consequences of persistent hyperlipidaemia

High triglycerides are associated with pancreatitis, insulin resistance, gallbladder mucocoele formation, and may be linked to glomerular damage and proteinuria. Miniature schnauzers with pancreatitis are 5 times more likely to have hyperlipidaemia than schnauzers without pancreatitis.

Testing for hyperlipidaemia

The number of schnauzers affected by hyperlipidaemia increases with age as does the severity of the hyperlipidaemia. About 15% of miniature schnauzers under the age of three years are hyperlipidaemic which rises to 45% in dogs over the age of nine years. To date there is no consensus as to the age or frequency with which schnauzers should be tested for this condition. However, it is often recommended that dogs over 5 years of age should have serum triglyceride and cholesterol concentrations assessed.

In dogs there are no cut-offs at which elevated triglycerides and cholesterol are considered safe vs when they are likely to lead to disease. In general, treatment including dietary modification is recommended when triglycerides exceed 5.6 mmol/L or in dogs that develop clinical signs at lower concentrations.

