In brief

Osteogenesis imperfecta (OI) is a severe inherited skeletal disorder encountered in multiple dog breeds, though this mutation was first identified in the Golden Retriever. Osteogenesis imperfecta is characterised by defective collagen resulting in fragile bones and loose joints. The disorder's mode of inheritance is not completely understood though there is evidence to support an autosomal dominant pattern of inheritance.

Clinical overview

The clinical signs of osteogenesis imperfecta include brittle bones, joint laxity, and brittle, opalescent teeth. Other possible signs are loss of hearing, stunted growth, and blue tinted sclera. The clinical signs are already evident in puppyhood. Bones of affected dogs fracture easily, for example during the course of normal puppy play.

References

Online database
Online Mendelian Inheritance in Animals, OMIA (http://omia.angis.org.au/), Faculty of Veterinary Science, University of Sydney.

Scientific articles

Disease severity
Severe

Clinical signs
- Bones that break easily
- Weak teeth
- Dentinogenesis imperfecta
- Hyperlaxity

Mode of Inheritance

Results of the genetic test are reported as follows:
- Clear
- At risk

Mutation(s) found in:

Osteogenesis Imperfecta, (OI); mutation originally found in Golden Retriever