

Ichthyosis

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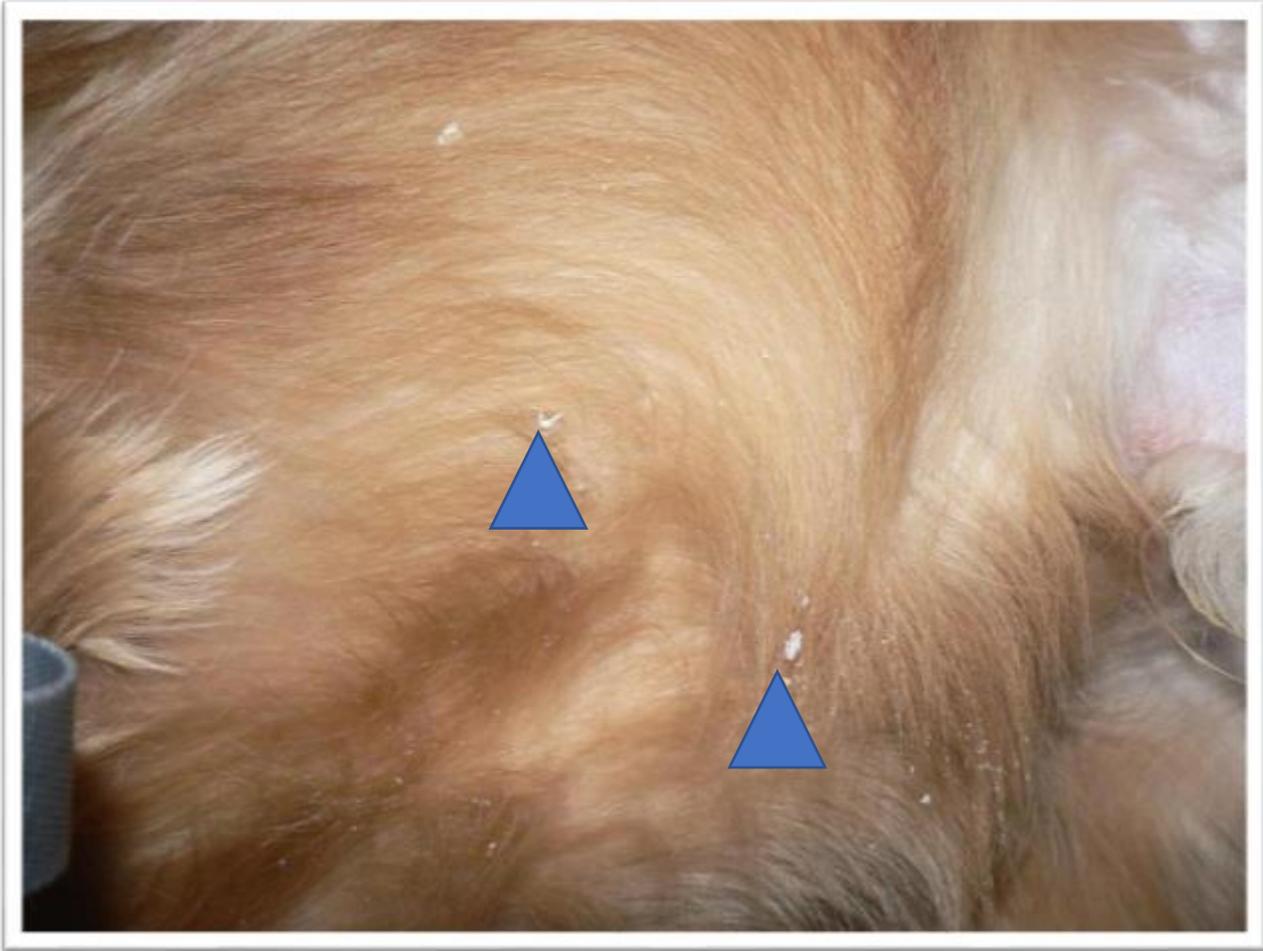
Ichthyosis, most simply put, is genetically-induced dandruff. It is a keratinization disorder that is characterized by variably sized, but generally large, loosely adhered flakes of skin. Severely affected individuals have thick scales that form sheets on the skin. Affected dogs may have a poor hair coat, but neither itching nor alopecia are features of this condition.

Ichthyosis is visually distinctive, and a diagnosis can be made based on history, signalment, and clinical signs. Golden retrievers, American bulldogs, Jack Russell terriers, and Norfolk terriers are predisposed, although other breeds can be affected. The disease has a juvenile age of onset and persists throughout adulthood. Some conditions can mimic ichthyosis and must be ruled out as part of achieving a diagnosis. These conditions include: pyoderma, yeast dermatitis and ectoparasites. Skin biopsies are needed in some cases. Histopathology reveals hyperkeratosis with variable amounts of hyperplasia and absent dermal inflammation. Histopathology alone is not likely to yield a definitive diagnosis.

In some cases, particularly when selecting individuals for breeding, genetic testing is appropriate. Genetic testing can determine the carrier status of the individual. In most types of ichthyosis, the genetic mutation is autosomal recessive. Genetic testing is available through Optigen Laboratories to detect the genetic mutation (PNPLA1) in golden retriever dogs. Genetic testing for breeds with other types of ichthyosis (i.e. American bulldogs with NIPAL4 mutation and Jack Russell terriers with TGM1 mutation) is not commercially available.

Treatment for ichthyosis relies on frequent shampooing to prevent accumulation of flakes and scale on the skin. Omega 3 fatty acid supplementation may also be beneficial. Dogs with ichthyosis may be more likely to develop atopic dermatitis and skin infections.

The prognosis for most dogs with ichthyosis is good. This is a condition that cannot be cured, but can be controlled in most cases.



Large flakes of epidermis in a golden retriever with ichthyosis.