‘MY LIZARD WON’T OPEN ITS EYES’ – A CASE-BASED STUDY OF HYPOVITAMINOSIS A AND OTHER ENVIRONMENTAL FACTORS AFFECTING LIZARDS’ EYES

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On reviewing the commonest presenting complaints for lizards over the last five years, ‘My lizard won’t open his eyes’ or my lizard has an ‘eye infection’ was the second most frequently recorded. However the situation is rarely this simple. Using a case-based discussion, the intention is to clarify the nutritional and environmental factors contributing to periocular pathology in lizards, and to examine the evidence for current theories on their pathophysiology.

Hypovitaminosis A is commonly reported as a cause of ocular disease in chelonia, and has also been reported in Iguanas and a Jackson’s chameleon. There are many anecdotal reports of the disease in other species of lizard, especially leopard geckos, however reports in peer-reviewed literature are more sparse. Hypovitaminosis A is primarily a disease of dietary deficiency, which leads to multifocal squamous metaplasia and epithelial hyperkeratosis. This can affect many organs, however the effects on the tear-secreting ophthalmic glands causing swollen and everted conjunctivae cause the classical clinical signs. What is not clear is whether this can be directly applied to species other than chelonians.

In almost every case it is necessary to deal with suboptimal environmental conditions contributing to clinical disease. Suboptimal temperature, lighting and humidity can all affect an animal’s ability to shed, which can allow build up of old skin around the eyes and mimic and eventually contribute to ocular disease.

The clinical signs attributed to vitamin A deficiency are vague and multifocal namely anorexia, weight loss, and lethargy in additional to oculonasal discharge. Since most lizards presenting with signs of ocular disease are in fact unwell for other reasons which exacerbate any dietary and environmental deficiencies it can be difficult to make a specific diagnosis. Couple this with difficulties presented by the lack of ante-mortem diagnostic and monitoring options and the situation becomes almost impossible. A sound knowledge of the wide-ranging effects of both vitamin A deficiency and suboptimal environmental factors can alert the clinician to the possible sequelae of apparent ocular disease.