

Cockatoo hindlimb paralysis syndrome, the past, present and future

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Cockatoo hindlimb paralysis syndrome (CHiPs) was first identified as a disease entity in 2012 when a cluster of 21 Carnaby's cockatoos with varying degrees of hindlimb paresis or paralysis presented to the Perth Zoo Veterinary Department. Epidemiologically this presentation has only affected Carnaby's cockatoos, and no gender or sex predilection has been found. From 2012-2017 the majority of cases have been found within a 15km of Perth city and 86% of the cases have occurred between January and March. Clinically these birds often have associated keel trauma from recumbency, however generally have no other evidence of trauma, infection or systemic illness and can recover with supportive care alone. We report our differential diagnosis list, our current clinical examination protocol, including acetylcholinesterase (AChE testing) based on published reference ranges formulated as part of this study; treatment regimes; and our wildlife disease investigation protocol including investigation of pesticide use in high caseload areas. Our current hypothesis is that CHiPs is caused by an anti cholinesterase toxin. Current and future disease investigation will assess the potential for neuropathic target esterase (NTE) assays which have shown a significant difference between the CHiPs and control cases for NTE inhibition.