Cloacal Papillomatosis in an Indian Ringneck Parrot

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Introduction

Internal Papilloma Disease (IPD) is a disease of parrots in which affected parrots develop papillomatous growths of the mucous membranes, most often in the throat, mouth and cloaca but also at other sites along the digestive tract. It is a chronic disease primarily of South American parrots but may also affect other parrots. For some years, IPD was thought to have an infectious aetiology with a virus being suspected. The cause behind the development of some of these papillomas has become more fully understood in recent years with herpes viruses, the same as those that cause Pacheco's disease, being identified in some birds with papillomas.

Pacheco's disease is caused by infection with the alphaherpesvirus, psittacid herpesvirus-1. Psittacid herpesvirus-1 has four distinct genotypes, all of which have the potential to cause Pacheco's disease. The outcome of infection is affected by the genotype, the species of parrot infected and other underlying factors (Phalen, 2006). In some species, persistent infection with these viruses results in the development of papillomas of the mucous membranes of the upper digestive tract and cloaca. It is also likely that the bile duct carcinomas and pancreatic duct carcinomas that develop in some birds with papillomas and contain psittacid herpesvirus-1 are also the result of the virus infection (Phalen, 2006). Recently, a second psittacid herpes virus has been associated with rarely seen papillomas in African Grey parrots (Phalen, 2006).

Case report

An eight year old female lutino Indian Ringneck parrot "Billy", was presented for examination in January 2007. A fleshy mass protruding from the cloaca had been observed at home by her owner. On presentation, "Billy" was in good general condition, bright and active. Examination revealed two nodular masses, each approximately 1mm x 3mm protruding from the cloaca. Each was covered by smooth pink non-ulcerated epithelium. 'Billy' was manually restrained, rolled onto her back and the cloacal lips everted. This revealed further nodular masses of variable but smaller size scattered irregularly over the lining of the proctodeum. 'Billy' was admitted to the clinic for diagnostic work. The next day, 'Billy' was anaethestised by isoflurane gaseous anaesthetic. One of the two larger masses was surgically excised and placed in formolsaline for histopathological examination. Blood was drawn from the right jugular vein for a Pacheco's PCR. It was felt that routine biochemistry and haemotology would be of value in developing a fuller understanding of 'Billy's' health but this was declined by the owner. The biopsy sample was forwarded to IDEXX Laboratories for histopathological examination. Histopathological examination of the cloacal mucosa showed multiple papillary structures covered by several layers of pleomorphic and occasionally mitotically active cuboidal to columnar epithelium

supported by a small amount of fibrovascular stroma. A virus was not demonstrated in these lesions.

Figure 1 – ‘Billy’, a female lutino Indian Ringneck parrot with cloacal papillomas

A diagnosis of cloacal papillomatosis was made. The blood sample was forwarded to Molecular Diagnostic Services where a Pacheco’s PCR was negative. The biopsy tissue was then forwarded to Dr D. Phalen at The Wildlife Health and Conservation Centre, where a further PCR was also done. This also yielded a negative result.

In the month following examination, ‘Billy’s’ owner reported that ‘Billy’ appeared normal at home and no mass was visible at the cloaca. A re-examination in April 2007 found ‘Billy’s’ cloaca to be grossly normal. As of July 2007, ‘Billy’ remains in good health.

Figure 2: 'Billy's' cloaca April 2007, No abnormalities were visible 4 months after biopsy collection

Discussion

The incidence of IPD is currently low but given the transfer of birds between aviculturalists the expectation is that it has the potential to spread and become more common (Macwhirter 2000). Veterinarians need to be aware of this disease and consider the possibility of a herpes virus involvement in any bird with a papilloma. In this case, no virus was visible on histopatholgy and PCRs on both blood and the cloacal biopsy were negative. In hindsight, running the initial Pacheco's PCR on a cloacal swab rather than blood may have been more likely to have yielded a positive result as viral DNA can be consistently found in the oral cavity and cloaca of herpesvirus-infected birds (Phalen 2006). However, given the limitations of the diagnostic modalities used, it seems that a herpes virus was not involved with this case.

References

Phalen D (2006). Testing for Psittacine Herpesviruses. *Proc. Annu. Conf. Assoc. Avian Vets*. pp 155-157.

Macwhirter P (2000). Viral Diseases of Concern. *Proc. Annu. Conf. Assoc. Avian Vets Aust Com* pp 171-186.