

PHENOL RED THREAD TEST READINGS AND INTRAOCULAR PRESSURE VALUES IN CLINICALLY NORMAL EYES OF WHOOPER SWANS (CYGNUS CYGNUS)

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INTRODUCTION. With every year there are more injured or ill birds brought in the veterinary clinics for a treatment, rehabilitation and for the re-releasing a healthy treated birds into the wild. Still there are difficulties to do a proper examination of the birds because of the limited diagnostic methods and lack of the normal physiological values of the tests. Therefore it is important to establish normal parameters of the ophthalmic tests not only for the comparative, laboratory animals but also for an exotic animals and wild birds. The aim of the study was to determine the normal reference range for the phenol red thread test (PRTT) and intraocular pressure (IOP) values in clinically normal eyes of Whooper Swans (*Cygnus cygnus*).

MATERIAL AND METHODS. A total of 81 healthy wild cygnets (45 male and 36 female) and five adult birds (2 male and 3 female) were used in this study. Both eyes of all birds underwent a complete ophthalmic examination and all patients were determined to be free of ophthalmic diseases. Examination included direct ophthalmoscopy (Keeler Practitioner, Windsor, UK), indirect binocular ophthalmoscopy (Welch Alynn, Romford, UK), monocular indirect ophthalmoscopy with the Pan Optic ophthalmoscope (Welch Alynn, Romford, UK) and slit lamp biomicroscopy (Kowa SL15, Nagoya, Aichi, Japan), fundusscopy with a fundus camera (SmartscopeVet2, Sonomed Oy Ltd, Finland), evaluation of the tear production with PRTT and the assessment of the intraocular pressure (IOP) by rebound tonometer, employing the TonoVet[®] device. PRTT and IOP values were expressed as means \pm standard deviation.

RESULTS. No statistically significant differences between right and left eyes were found for any of the results. The mean IOP were as follows: all birds 11.19 ± 3.48 mmHg, moulting birds 9.5 ± 1.27 mmHg, all cygnets 11.30 ± 3.55 mmHg, cygnet males 10.93 ± 3.56 mmHg, cygnet females 11.74 ± 3.50 mmHg. PRTT values were as follows: all birds 22.5 ± 3.63 mm/15s, moulting birds 21 ± 5.58 mm/15s, all cygnets 22.59 ± 3.48 mm/15s, cygnet males 22.64 ± 3.54 mm/15s, cygnet females 22.53 ± 3.44 mm/15s.

CONCLUSION. This study provides novel data for normal reference ranges of PRTT and IOP values in healthy Whooper swans, suggesting that PRTT and IOP methods are practical methods in swans.