

Introduction and objectives

Psittacine birds are quite common as companion animals and zoological specimens with a wide variety of different genera and species. The veterinary medicine, husbandry and care of aviary birds have improved considerably in the last years, so their lifespan is longer and the incidence of neoplasms is higher.

The main objective of this bibliographic review is to study retrospectively the casuistry and incidence of neoplastic processes in psittacine birds diagnosed at Servei de Diagnòstic de Patologia Veterinària (SDPV) and to review it with the literature.

Materials and methods

The case records for all psittacine birds samples submitted to the SDPV from January 1, 1998 to April 30, 2022 were examined. 82 samples from 1213 birds were diagnosed with a neoplastic process, a resulting incidence of 6.8% in the Psittaciformes order.

Results and discussion

Table 1. Incidence of neoplasms in psittacine bird species.

Especie	Neoplasms	%
Budgerigar (<i>Melopsittacus undulatus</i>)	29	37.2
Lovebird (<i>Agapornis roseicollis</i>)	10	12.8
Amazon parrot (<i>Amazona leucocephala</i>)	10	12.8
Cockatiel (<i>Nymphicus hollandicus</i>)	10	12.8
African grey parrot (<i>Psittacus erithacus</i>)	8	10.3
Macaw (<i>Ara spp.</i>)	5	6.4
Burrowing parrot (<i>Cyanoliseus patagonus</i>)	2	2.6
Rosella (<i>Platycercus eximius</i>)	2	2.6
Not identified specie	2	2.6
Cackatoo (<i>Cacatua cacatua</i>)	2	2.6
Sun parakeet (<i>Aratinga solstitialis</i>)	1	1.3
Eclectus parrot (<i>Eclectus roratus</i>)	1	1.3

Table 2. Incidence of neoplasms classified by systems and organs.

Systems and organs	Neoplasms	%
Tegument	28	35.9
Liver	9	11.5
Hemic and lymphoid	8	10.3
Reproductive	8	10.3
Skeletal and muscular	8	10.3
Urinary	7	9.0
Endocrine	6	7.7
Alimentary	6	7.7
Respiratory	3	3.8
Cardiovascular	0	0
Nervous	0	0
Eye	0	0

Image: Four cases diagnosed at SDPV

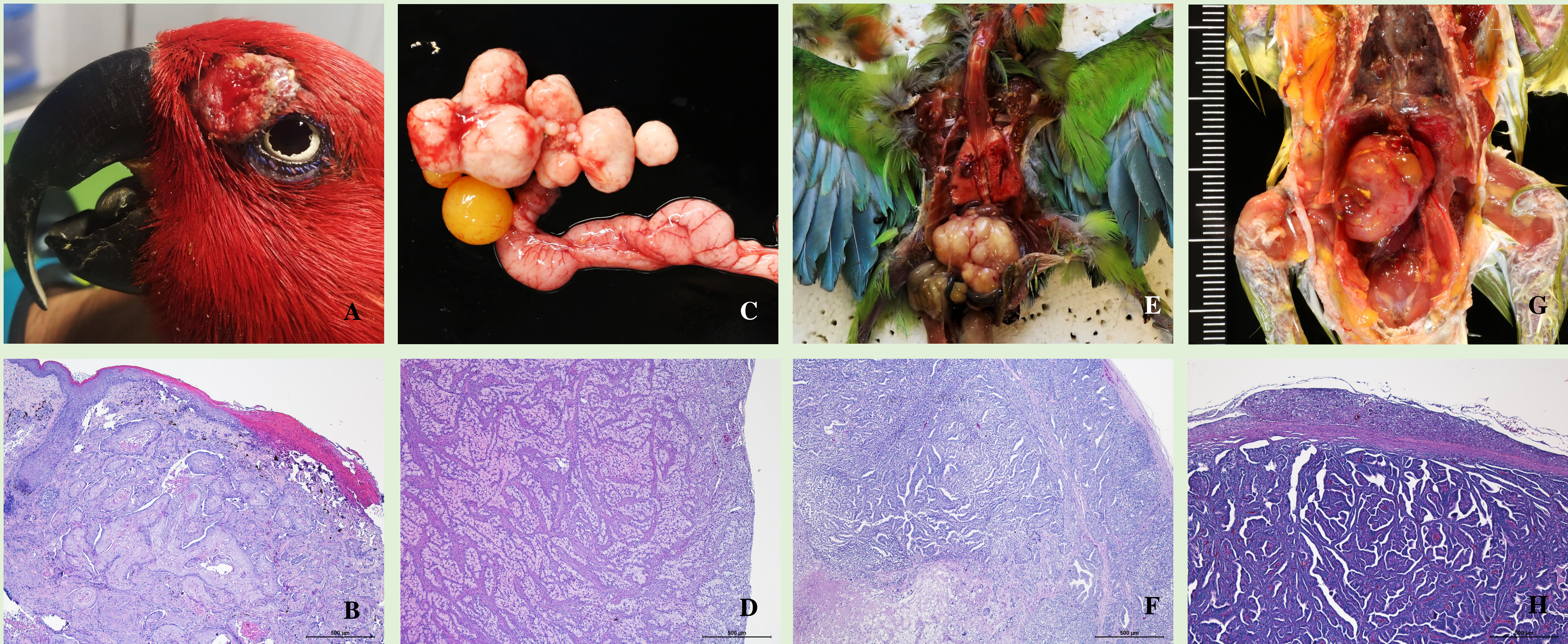


Image. A,B: squamous cell carcinoma in a *Eclectus roratus*; C, D: oviductal adenoma in a *Nymphicus hollandicus*; E, F: renal carcinoma in an *Agapornis roseicollis*; G, H: renal adenoma in a *Melopsittacus undulatus*.

Conclusions

- The results obtained at SDPV are similar to those observed in other studies and previously described in the literature.
- Psittaciformes order has the highest incidence of neoplasms when compared to other orders of birds, except for Galliformes.
- The type of neoplasia lymphoma, the specie *M. undulatus* and the integument system are the ones with the highest incidence of neoplastic processes.
- Some neoplasms are more common in a particular specie, age, sex or anatomical location. So, the study, identification and characterization of the most common neoplasms in these birds by pathologists is a very important and useful information for the clinical approach of the patients.