Evaluation of canine and feline tumors in Morocco: Results of a country-wide epidemiologic and histologic study

N. Laissaoui[*,†], D. Simon Betz[‡], Y. Millán[§], M. El Mrini[¶], N. Lamalmi[±], N. Tligui[†] and R. Azrib[*]

[*]Department of Medicine, Surgery and Reproduction and [†]Department of Veterinary Pathology and Public Health, Agronomy and Veterinary Institute Hassan II, Rabat, MA, [‡]Independent Scientific Writing, Translation & Consultancy Clinical Oncology, Armsheim, DE, [§]Department of Comparative Pathology, Faculty of Veterinary Medicine, University of Córdoba, Córdoba, ES and [¶]Department of Animal Health, National Office of Sanitary Safety of Food Products, Rabat, MA and [±]Departement of Pathology, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, MA

Introduction

Cancer epidemiology is a valuable means of surveillance and understanding. Systematic veterinary data however remain scarce for many countries. This work aimed to evaluate the occurrence, epidemiology and histopathologic characteristics of canine and feline neoplasias in Morocco.

Materials and Methods

In a prospective study (September 2020 to March 2023), 250 tumour samples were collected from veterinary clinics across five regions in Morocco and subjected to histopathological diagnosis. For each case, breed, age, sex, neuter status, geographic region, and tumour site were analyzed.

Results

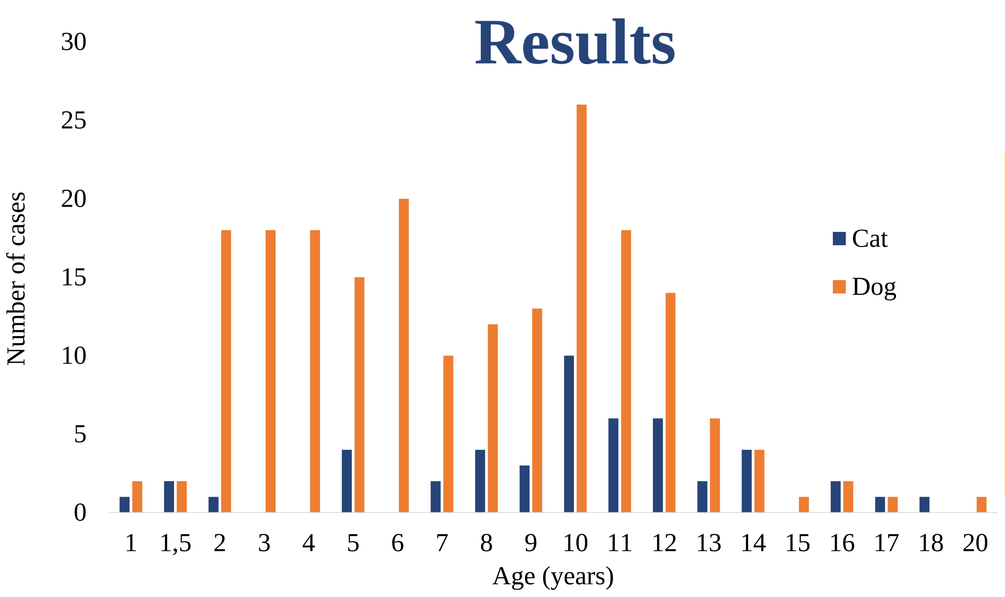

Figure 1. Age distribution of dogs and cats diagnosed with tumours in this study

- A total of 250 tumours were diagnosed.
- 201 (80.4%) were from dogs.
- 49 (19.6%) were from cats.
- Median age of dogs and cats at diagnosis was 7 and 10 years, respectively.

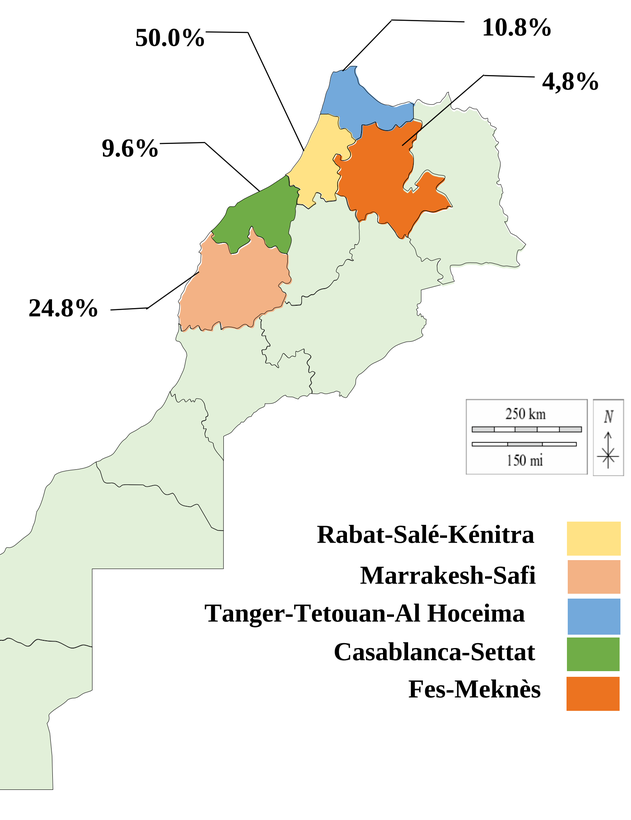

Figure 3. Total prevalence of tumours diagnosed in dogs and cats across five regions in Morocco

- Sex distribution was even in dogs (f:m=1:1.1), whereas in cats females were overrepresented (f:m=1.6:1).
- Tumours were mostly observed in mixed breed dogs and cats with a prevalence of 45.8% and 87.8% respectively.

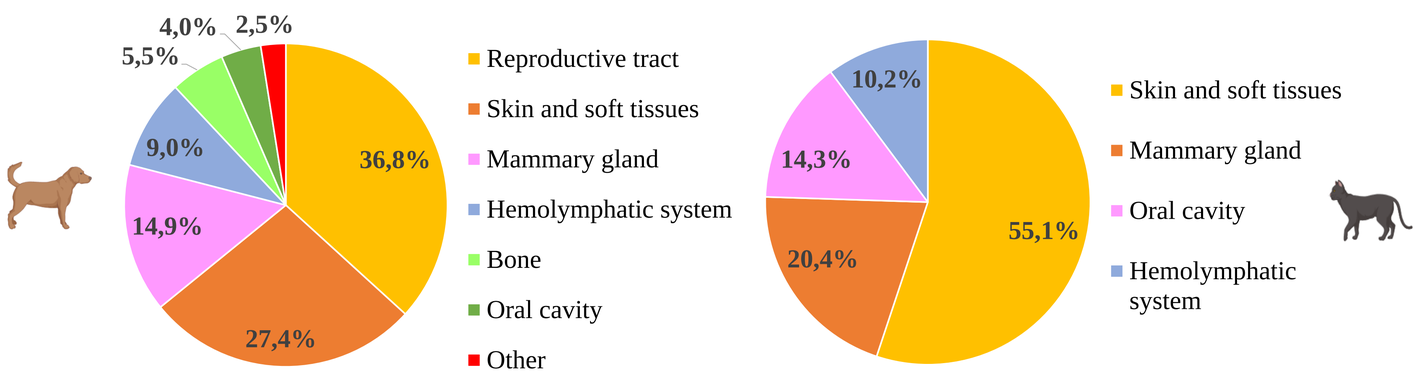

Figure 2. Distribution of tumours diagnosed in dogs and cats by anatomic site (%)

Discussion

The reproductive tract was the most affected location by tumours in dogs. This might be explained by the large number of cases with canine transmissible venereal tumour in our study. Whereas, studies in other countries reported skin and mammary gland as the most frequent site of tumour development. [1,2,3] In cats, skin tumours were the most common neoplasms, mainly due to high prevalence of squamous cell carcinoma. These results were in accordance with previous studies. [4,5]

- Most common canine histologic tumour types were transmissible venereal tumour (31.8%) and mammary carcinoma (14,4%). Whereas, squamous cell carcinoma (34.7%) and mammary carcinoma (20.4%) represented the most frequent feline neoplasms.

Conclusions

Tumours in dogs and cats from Morocco show epidemiologic and histologic differences to populations from other countries, in part grounded in the high incidence of canine TVT and - possibly solar-induced –feline skin tumours.

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