MAMARY GLAND TUMOR *VS.* BIRTH-CONTROL PILL

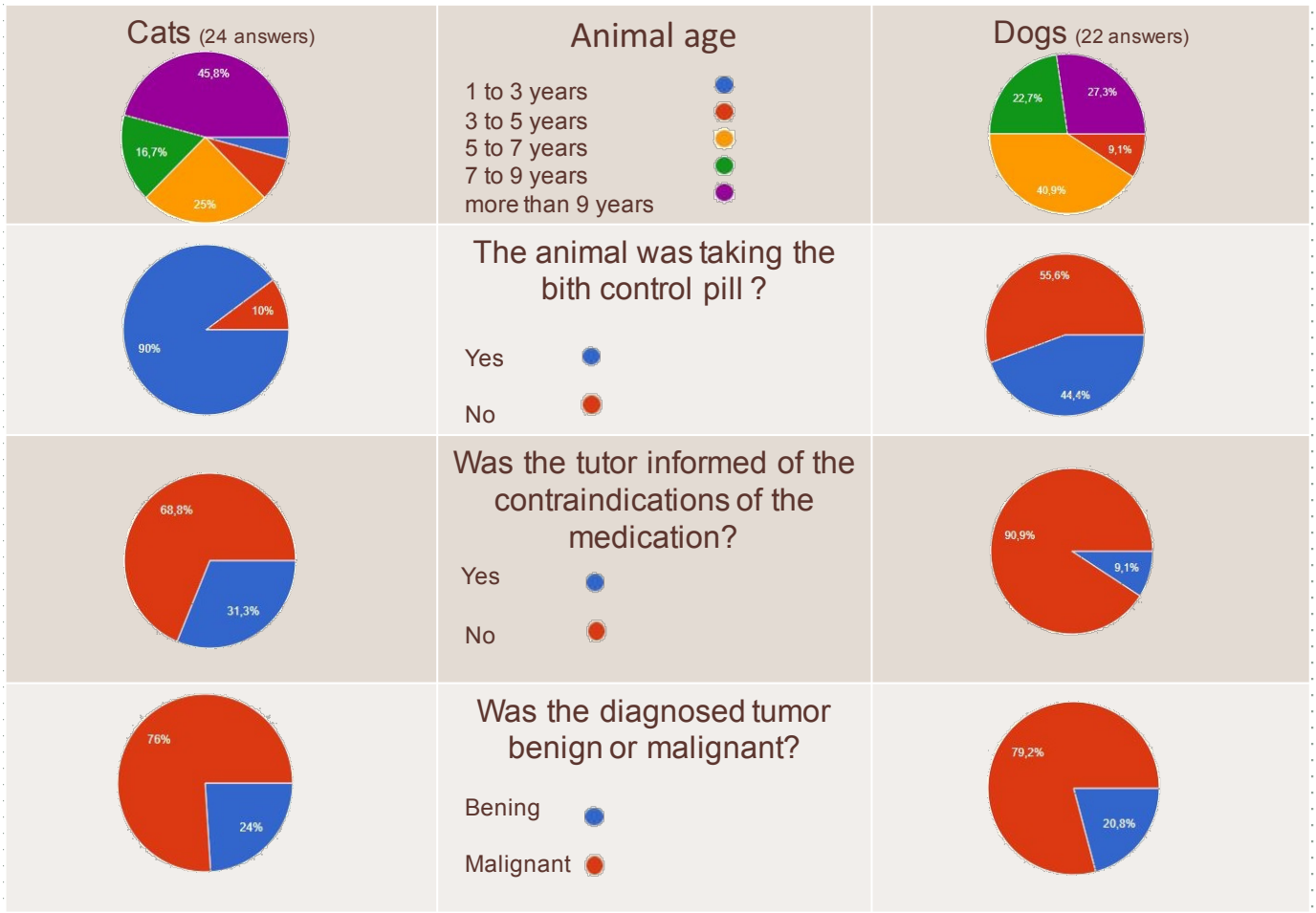
Pazo Fariñas, A[1]; Valentim, R.[2]; Quintas, H.[2]
1 Escola Superior Agrária, Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal.
2 Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal.
Andrea Pazo Fariñas, Escola Superior Agrária, Instituto Politécnico de Bragança,
E- mail: andrea.pazof@gmail.com

Figure 1 - Benign mammary hiperplasia in nine month cat.

Introduction: Mammary tumours are very common in small animals. No direct cause has been related to this disease but some risk factors have been reported: endocrine, genetic, diet and lifestyle factors.
The main goal of this work was to identify a possible relationship between birth control pill administration and the occurrence of malignant/benign mammary tumours in clinical diagnosed females. Pet owners of bitches and queens diagnosed with mammary tumours were inquired on specie, age, tumour diagnosis date, natural or contraception birth control, contraception active drug ingredient, tumour origin (benign or malignant) and their awareness on pills contraindications.

Material and Methods: Between april and june 2019, pet owners (n = 46) of bitches (n = 22) and queens (n = 24) diagnosed with mammary tumours were online inquired on specie, age, tumour diagnosis date, natural or contraception birth control, contraception active drug ingredient, tumour origin (benign or malignant) and their awareness on pills contraindications.
Data analysis was performed using SAS Statistical Software, version 9 (SAS Institute, 2010). Discrete data were analysed by Chi-square test. Odds ratio (OR) values were calculated. Differences were found to be significant at $p<0.05$ level.

Figure 2 - Malignant mammary hyperplasia in a nine year female German Shepherd.



Discussion and Results: Older females have a greater predisposition to mammary tumours both in bitches and queens (older than 7 years). For both species, the occurrence of malignant or benign tumors did not vary with age and with the duration of treatment ($p>0,05$). Total data (bitches + queens) indicates a relationship between the administration of pills and the rate of malignant tumours ($p<0.05$). In fact, contraception seems to cause five times more malignant than benign tumours (OR = 5.24). Nevertheless, this relationship cannot be established ($p>0.05$) when data is analysed by specie ($p>0.05$) possible due to the sample size. Thus more extensive studies must be developed in the future. For now, veterinarians and veterinary nurses must consider reinforcing owners' information concerning birth control methodologies and their impact on the development of mammary tumours.

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