RESEARCH USING SAVSNET DATA

A TEXT-MINING BASED ANALYSIS OF 100,000 TUMOURS AFFECTING DOGS AND CATS IN THE UNITED KINGDOM

Full paper published in the Nature Scientific Data available here

1 ONE HEALTH

Cancer is a public health issue that requires a One Health approach. In this sense, animal tumour registries (ATR) are a key part in the fight against this disease providing a valuable source of information for all the different veterinary disciplines that play a role in cancer treatment and prevention.

2 AIM OF STUDY

We analysed electronic pathology records (EPRs) from veterinary diagnostic labs (VDLs) to extract specific information about the characteristics of both the tumour diagnosed and the dog or cat affected to provide a normalized and accessible dataset to be queried by any interested scientist for their own research.
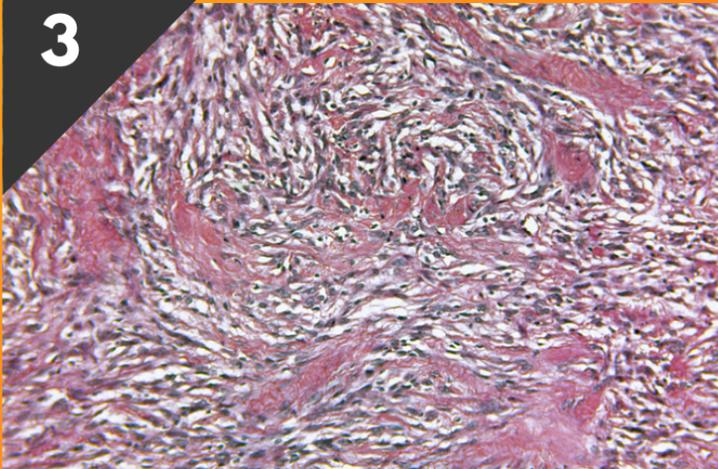
3 METHODS

We used a data-mining approach to process an original collection of 180,232 canine and feline EPRs reported by three VLDs between April 2018 and June 2019. From these reports, 93,941 had a tumour related diagnosis with a total of 109895 tumours.

4 SKIN AND SUBCUTIS TUMOURS

Three types of skin and subcutis tumours such as lipomas, mast cell tumours and histiocytomas accounted for more than 40% of all tumours in 85435 dogs. In the sample of 8506 cats, lymphomas, squamous cell carcinomas and other carcinomas were the most frequent diagnosed tumours.

5 EASY ACCESS

The tumour dataset can be easily consulted and downloaded for queries and reuse in further research from Figshare.
This is the first detailed tumour dataset published in a peer reviewed journal.
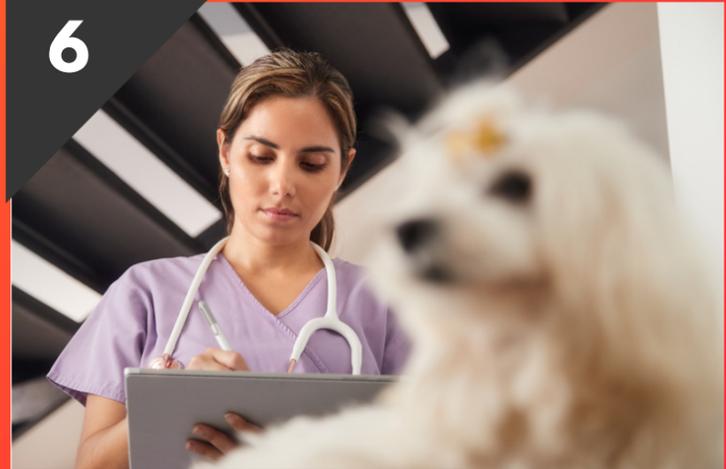
6 THE FUTURE

ATRs need more development in the future to become a truly epidemiological surveillance tool as they are in human medicine.
We hope to develop this work will become a reference point on a national scale as well as for members of the Global Initiative for Veterinary Cancer Surveillance (GIVCS).

❝ Now that the SAVSNET Tumour Registry is published, we are excited to provide the scientific and veterinary community with a huge dataset of more than 100,000 tumours affecting almost 94,000 dogs and cats from the UK. We hope this will be platform from which future research projects can be developed. Thank you to all veterinary laboratory diagnostic labs who provided data for this project and co-authored the paper. We would like to encourage other as well to collaborate with SAVSNET in the future. ❞

Dr Jose Rodríguez