Small animal *Review*

Summary: The VetCompass™ programme has, over recent years, been a rich source of new publications on veterinary primary care. The brain child of Dan O'Neill, Senior Lecturer in Companion Animal Epidemiology at the Royal Veterinary College, VetCompass utilises the clinical records of large numbers of veterinary practices to discover new evidence regarding breed specific health data and information on the prevalence and management of specific diseases. Its conclusions can subsequently inform both individual veterinary practice and policy, at an organisational level. At the time of writing, the VetCompass database comprises data from over 20 million animals from over 1800 UK veterinary practices. This month's *Small Animal Review* looks at three recent examples to be published using data from the project.

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Common canine disorders

One of the group's latest papers examines the prevalence of commonly diagnosed disorders in UK dogs under primary veterinary care. O' Neill et al (2021) randomly sampled approximately 2.5% of dogs from a database of nearly a million, in order to report the frequency of common disorders and how they were affected by signalment. Unsurprisingly, periodontal disease (prevalence at precise-level 12.5%), otitis externa (7.3%) and obesity (7.1%) were the most common disorders. At the group level, skin disorders and enteropathy were also common. The study identified a number of associations between commonly diagnosed disorders and signalment. The authors note that these findings can help vets prioritise preventative care and could be used to improve the provision of targeted support for at-risk demographic subsets.

Canine hyperadrenocorticism

A disease-specific paper published using VetCompass data examines hypoadrenocorticism (Addison's disease) in dogs. Hypoadrenocorticism may be under-diagnosed, especially as its clinical signs can mimic those of other diseases. A study by Schofield et al (2021) estimated the frequency, clinical approaches and risk factors for hypoadrenocorticism in dogs managed in UK primary practice. Pre-existing and new cases in the year 2016 were identified from the database and were then categorised by diagnosis as laboratory-confirmed or presumed. A total of 177 cases were identified, giving a 1-year period prevalence of 0.06%. Lethargy, anorexia and vomiting were the most common clinical signs reported, hence why it can be hard to diagnose the condition without a pre-existing high index of suspicion. Out of 53 cases for which data were available, 47 had hyperkalaemia and 46 hyponatraemia, with a median sodium:potassium ratio of 19:0. There was an association between laboratory confirmation of diagnosis and breed, age, neuter and insurance status. Ten (5.6% of cases) were recorded as 'atypical', but the authors note there is no standard consensus on the definition of atypical hypoadrenocorticism. Three of these cases had endogenous aldosterone concentration measured. The Standard Poodle had 51 times higher odds of hypoadrenocorticism compared to crossbreeds. Labradoodles and West Highland White Terriers were also predisposed. The authors note that this is the first epidemiological study of hypoadrenocorticism in primary care in the UK.

Canine euthanasia

The third VetCompass study in this review examined euthanasia in dogs in the UK. Pegram et al (2021) took a random sample of nearly 30 000 dogs that had died, from a sampling frame of over 900 000 dogs under primary care in the UK in 2016, and extracted method and cause of death. In total, 89.3% of dogs were euthanised while 8.3% died unassisted (the remainder were unrecorded or excluded). After statistical adjustments, the disorders most likely to result in euthanasia were poor quality of life, undesirable behaviour, spinal cord disease and inappetence. Larger body weight and older age increased the odds of euthanasia relative to an unassisted death and a breed association was also noted. Rottweilers were the only breed to be more likely to be euthanised than Labradors, while Cavalier King Charles Spaniels, Pugs and Bulldogs were significantly more likely to die unassisted, probably as a result of sudden death or rapid deterioration of underlying diseases associated with cardiovascular conditions or brachycephaly. A higher percentage of euthanised dogs were communally cremated, compared to dogs that died unassisted, while a higher percentage of dogs that died unassisted were individually cremated, compared with euthanised dogs. The authors speculate that owners of euthanised dogs may have had more time to come to terms with their loss, so were less likely to need a symbolic memorial such as ashes to help with the grieving process. However, financial issues may also have contributed to this finding. The authors concluded that most dog owners will have to make decisions regarding euthanasia and vetinary professionals should help prepare them for this eventuality.

References

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