

CONSCIOUS CT IN EXOTIC AND WILDLIFE SPECIES**Beth Singer** RVN CGVNES

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A CT (computed tomography) scan is a digitally processed combination of x-ray images from multiple angles that can produce cross-sectional images of specific areas of interest with slices as small as 0.65mm apart. It is well integrated into the veterinary world but it has so much more to offer particularly in exotic, wildlife and zoo species, the quality of information that can be obtained from CT imaging has huge potential in monitoring health, providing veterinary diagnosis as well as being an invaluable source of education for the future.

At the Royal (Dick) School of Veterinary Studies CT is a minimal stress procedure that rarely requires any sedation or general anaesthetic. There are various positioning techniques and aids that allow us to restrain patients in a safe and ethical way to perform three scans:

- Topogram
- High definition
- IV contrast

Cross-sectional views that are taken can be as close as 3mm which gives us an amazingly high-definition 3D 'x-ray' that can be used for diagnosing numerous conditions and help precisely plan any surgical repairs. A previous study (De Matos et al., 2015, Mäkitaipale et al., 2015) discovered that all 164 rabbits in their study were found to have subclinical findings which were picked up only after performing a detailed clinical exam and radiographs. We have seen the same pattern forming with CT picking up on incidental, subclinical findings that can then lead to the proper care for those patients (Mancinelli and Lennox, 2017).

References

- DE MATOS, R., RUBY, J. & VAN HATTEN, R.A. (2015) Computed tomographic features of clinical and subclinical middle ear disease in domestic rabbits (*Oryctolagus cuniculus*): 88 cases (2007-2014). *Journal of American Veterinary Medicine* 246(3), 336-343
- MAKITAIPALE, J., HARCOURT-BROWN, F.M. & LAITINEN-VAPAAVOURI, O. (2015) Health Survey of 167 pet rabbits (*Oryctolagus cuniculus*) in Finland. *Veterinary Record* 177(16), 418