Superman's View of Chelonians: Radiographs as Diagnostic Imaging

Diagnostic imaging plays an important role in aiding in diagnostics, even in chelonians. Radiology can be useful in detecting cystic calculi, visualizing the reproductive tract, assessing for fractures, and can monitor for the presence of pneumonia. It is difficult to assess other internal organs, unless there is mineralization or enlargement. Radiographs should include a dorsoventral, craniocaudal, and lateral views to assess the entire coelom. Lateral radiographs provide the best view of the viscera. The viscera and the lung field account for the ventral 50% and dorsal 50% of the coelomic cavity, any change to this percentage indicated an abnormality. Craniocaudal radiographs allows distinct visualization into each lung.

Radiographs are the imaging modality of choice as ultrasound is seldom used in chelonians. However, ultrasound is becoming more frequently reported in the literature. There are two acoustic windows in which visualization of the internal organs is possible. The prefemoral window allows for the visualization of the liver, GI tract, urinary bladder, and kidney. The cervicobrachial window allows for the visualization of the heart, liver, and large vessels.

Tips, Tricks, and Toys

Say Ahhh!

Most of us have struggled to open the mouths of small chelonians and even smaller lizards. The next time you find yourself struggling to visualize the oral cavity, reach for one of the blue picks from the surgical hand scrubs! These small semi-flexible pieces of blue plastic have a wedged end. The wedged end can be used to open the mouths of small yet stubborn chelonians by inserting it underneath the maxilla while the mouth is closed. This is a very atraumatic way to use this tool.

Continued on the Next Page ...
Endoscopy can be used in chelonians as well. Entrance to the coelomic cavity is through the prefemoral fossa and allows visualization of the liver, kidney, reproductive organs, and digestive tract. The endoscope can be placed through the oral cavity to grant visualization of the upper digestive tract and respiratory tracts. Insertion of the endoscope through the cloaca allows the lower digestive, urinary, and reproductive tracts to be visualized. This also allows for the appropriate biopsy to be sampled.

MRI and CT are both excellent imaging modalities to visualize chelonians.

Lauren Kane
University of Illinois 2016 Graduate

**ARAV Awesomeness!**

A HUGE thank you to Dr. Nicole Johnson who put together the Official ARAV CafePress store! Don’t be caught without your ARAV swag.

Visit us at: [http://www.cafepress.com/ARAVshop](http://www.cafepress.com/ARAVshop)

**Student Corner**

I’m still working on getting the student chapter sign ups to go through the online site, should be up shortly. We are also accepting student posters for the poster contest this year, there will be some more email announcements for it in the coming weeks, but students or anyone wanting more information can contact me directly at cmcd.vmd@gmail.com. Thanks!

Dr. Colin McDermott

**ABVP Announcement!**

For all of you interested in becoming boarded in Reptile and Amphibian medicine come visit the 19th Annual ABVP Symposium in Nashville, Tennessee October 30-November 2, 2014. Find out more information at [www.abvp.com](http://www.abvp.com)
Update on Reptile Legislation

ARAV has been made aware that the American Bar Association Animal Law Committee has written on a report on Dangerous Wild Animals August 2014.


The address above is a direct link to the report. We strongly encourage our members to read the report and contact their local legislative authorities with their thoughts.

Test Your Knowledge!

Thank you to the Academy of Veterinary Technicians in Clinical Practice (AVTCP) for providing us with some questions! Find the answers in next month’s Herp Blerp!

Which of the following chelonian species should NOT be hibernated during the winter months?
A. California desert tortoise (Gopherus agassizii)
B. Eastern box turtle (Terrapene carolina)
C. Red-foot tortoise (Geochelone carbonaria)
D. Red-eared slider (Trachemys scripta elegans)

How many chambers does the heart have in an amphibian species?
A. Three; two atria and one ventricle.
B. Three; two ventricles and one atria.
C. Two; one atria and one ventricle.
D. Four; two atria and two ventricles.

Which of the following are potential venipuncture sites in an anuran?
A. Orbital venous plexus, ventral abdominal vein, or jugular vein.
B. Cephalic vein, medial metatarsal vein, or jugular vein.
C. Jugular vein, cephalic or lateral saphenous veins.
D. Heart, ventral abdominal vein, or lingual vein.

Mark Your Calendars ...

October 8 – 12, 2014. Wild West Veterinary Conference. Reno, Nevada, USA.

October 18 – 24, 2014. 21st Annual Conference of the Association of Reptilian and Amphibian Veterinarians. This will be a concurrent conference with the American Association of Zoo Veterinarians and the Association of Exotic Mammal Veterinarians and will be held at Walt Disney World, Orlando, Florida.


Questions, Suggestions, or Articles can be Submitted to: e.medecv@gmail.com