

VIDEO OTOSCOPY IN REPTILE PRACTICE: WHAT FOR ?

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ABSTRACT

A Video Otoscope (or oto-endoscope) is an optical tool that is usually used in both human and veterinary medicine to transfer high resolution and magnified images from the ear canal to an image capturing system through internal CCD. In dogs and cats, it is known to provide concise details for evaluating the condition of the external canal and tympanic membrane.

This cutting edge simple and compact endoscopic device can also be routinely used in reptile practice, even if these animals are devoid of any external ear. It is so easy to hook up and to handle that it can be a part of any physical examination in reptiles, especially to obtain direct visualization of the oro-pharyngeal cavity in lizards, snakes, turtles and tortoises without anesthesia (as in rabbits). It is less fragile and much shorter than a classical rigid endoscope.

Different VO stations are currently available to the practitioner. The Optomed* Daily Scope® I use every day is composed of a 75W halogen light source, a 6 feet fibroscope light guide cable, a stainless otoscope, a camera, and a 1024x768 resolution video monitor with a foot-guided remote control. It can be wall-fixed, portable in a lightweight small suitcase or displayed on a mobile trolley. The color video camera which is on the top of the otic speculum allows magnification of the oral mucosa, the tongue, the teeth, the glottis, the choanes, the oesophagus and even the stomach in small and medium sized reptiles. Thus, this equipment can be very helpful to diagnose stomatitis, glossitis, obstruction of the choanes, tracheal discharge and aural abscess in chelonians by visualization of pus coming out from the pharyngeal orifices of the Eustachian tubes.

Video otoscopy can also easily provide assessment of the cloacal mucosa and can be a great tool to evaluate small anatomical parts of the body (nares, eyes, eyelids, tympanic membranes). It can help to detect ectoparasites (such as *Ophionyssus natricis* around the spectacles in snakes) as well as other dermatological lesions. It can be easily cleaned and disinfected after each use.

By projecting the images onto a video monitor, this device promotes patient compliance and education.

Thus, herpetologists can use Video Otoscopy in numerous key applications of their reptile practice. It is one of the most exciting and helpful pieces of equipment I have acquired.

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Table 1 : Structures visualized through video-otoscopic examination and correlates.

Structures visualized	Correlates
Tongue	Glossitis – Stomatitis - Abscesses
Glottis	Tracheal discharge - Pneumonia
Choanes	Obstruction by respiratory secretions
Oropharyngea l mucosa	Anemia Biliverdinemia (hepatic failure) Gingivitis – Stomatitis Hypersalivation
Eustachian tubes orifices (chelonians)	Aural abcess (otitis)
Teeth (snakes and lizards)	Mouth rot - abscesses
Jaws (maxillary and mandibular bones)	Osteomyelitis
Oesophagus (Small and medium sized reptiles)	Oesophagitis – nematodes - wounds
Stomach (Small and medium sized reptiles)	Gastritis – nematodes – foreign bodies
Eyes and eyelids	Conjonctivitis – keratitis – cataract – epiphora - ulcerations
Nares	Nasal discharge
Skin	Ectoparasites – wounds - dermatitis
Beak (chelonians)	Beak overgrowth, deformities
Cloaca	Prolaps – wounds - cloacitis