

January - March 2022

BULLETIN OF THE

# PET PRACTITIONERS ASSOCIATION OF MUMBAI.

(For Circulation amongst PPAM Members)



## Editorial

### PPAM members Let us convene more often

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One lesson the Covid pandemic has taught us is the agony we face when not allowed to socialize and the joy of socializing we always took for granted. Thankfully the pandemic seems to be ebbing and we all may again be able to live freely and happily and meet each other in person.

PPAM members we need to meet more often now, let us learn together, share our experiences and difficulties. Many of us are active on social media but being a social animal meeting each other in person is far more energizing and satisfying than meeting virtually.

Meetings and Seminars when done well will help PPAM members feel included, trusted, and that they are important team members and allow them to contribute to the success of our Association. Our culture and functioning need not be determined solely by our few members or leaders. Frequent interaction between PPAM members will give important opportunities for our young team members to contribute their ideas and also let them know

our expectations, needs, and wants from them. These educational meetings must be purposeful and efficient.

All information should be shared by email before members come together. This can save time. PPAM members know the topics well ahead of a discussion. This will give enough time for introverts to prepare and contribute to ideas. Otherwise, as some members are deep thinkers, the discussion may end while they are still thinking, and their ideas and contributions go unspoken. Let's encourage each member to offer input and contribute their ideas for the growth and development of PPAM. Senior members must assure every member of PPAM that respectful disagreement and debate are desired during meetings and seminars. We do not want "yes" men



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and women, but, for certain, when the discussion and meetings end, we unite and all are supportive of collective decisions taken and no complaints afterward.

Frequent and Quality get-togethers of PPAM Members will build Stronger Relationships among members. When there's a free-flowing exchange of ideas and we all can see and hear our member's thoughts personally, we can get to establish a deeper bond with our members. Effective and meaningful gatherings for education will create this strong bond. A strong team dynamic is vital for collective work success and productivity. Nothing beats a physical team meeting to create and maintain a good working relationship. But if need to meet remotely via a conference call, we must opt to use video so we can still see our team members' expressions and establish a deeper connection with them. The effective educational get-together will allow PPAM members to discuss complex issues and talk through ideas and solutions. When discussing complex issues with a lot of variables involved, it's easier and faster to do so in a face-to-face meeting. Effective educational meetings enable members to get on the same page quickly. The speakers in educational meetings or senior members can come up with a good

idea alone. But the possibility of creating even better ideas when all members come together is even better.

Effective educational get-together is a great channel for feedback and continuous educational improvement. Feedback is given instantaneously by our members and this open communication allows our team members to grow professionally.

When PPAM members feel that their inputs are solicited and considered, it helps them value their membership more. It will also motivate them to contribute to the improvement of the organization as a whole.

Depending on how we conduct our educational meetings, it can be a productive and rewarding experience for everyone. When conducting educational meetings with PPAM members should be provided with the opportunities to discuss their thoughts, ideas, and concerns in a comfortable and collaborative environment.

So PPAM members let us meet more often and we at the PPAM managing committee expect to see you all in large numbers during our forthcoming educational programs.

## Dr. S. R. Chinchkar

### Academician cum Clinician (1.10.1954 - 30.01.2022)

PPAM family received a big shock with its most energetic member, Dr. S. R. Chinchkar departing for heavenly abode on the morning of 30th January 2022. It was unexpected because Dr. Chinchkar was a much-disciplined person. He was very particular about exercise & diet & never suffered any illness until then. His sense of social responsibility was exceptional. He was the key figure in organizing the disaster management cell of PPAM. He arranged meticulously various programs that earned laurels for PPAM. He would leave no stones unturned to achieve what he wanted to. He developed a dedicated team within members that would rush to spots of need. As a teacher, he did full justice to his job by involving students in practicals conducted in Deonar slaughterhouse- a program that may not find any parallel. Though strict, he was compassionate when it came to helping his students in their studies.

It will be difficult for us to replace him in the work he has founded. We shall try our best to follow his principles to take forward what he has started under the banner of PPAM.



Dr. S. R. Chinchkar



## Part of Article of Dr. S. R. Chinchkar published in PPAM Bulletin in 2015 is reproduced

(Dr. S. R. Chinchkar graduated in 1978 and obtained Master's degree in 1980 and in service Ph.D. in 1994 in Animal Reproduction, Gynaecology and Obstetrics from Bombay Veterinary College, Mumbai. Started his career as a Research Assistant on 28-03-1980 and worked on various positions almost for 35 years and retired on 30-09-2015 as a Professor and Head, ARGO, BVC, Mumbai. Though his complete career happened to be in academic line he always liked to introduce himself as a Clinician first and then Academician because of his inclined interest in large as well as small animal practice)

Dr.S.R Chinchkar sir appeal in PPAM Bulletin in 2015 is reproduced as such.

"My appeal to all practicing veterinarians to give more emphasis on correct clinical diagnosis and always make it a habit to confirm your diagnosis by laboratory tests. Due to varied reasons, we are lacking behind in laboratory investigations. There are various specialized fields from which you can master one or two along with the general practice. PPAM, Mumbai plays a very important role in this context. It is up to the individuals to take the advantage of it. I am congratulating PPAM, Mumbai for conducting CE programs on and often and publishing Technical Bulletin periodically to update the knowledge of practicing veterinarians. Hard work, sincerity, and keeping patience will rise you to the glory of this profession".

## Dr. Vasant Gopal Joshi (15.03.1932-10.03.2022)

### A soft-spoken and ever-smiling personality

The veterinary fraternity lost a soft-spoken, gentle heartened, and ever-smiling personality. A professor and Head Department of Physiology for several years at Bombay Veterinary College. Sir was very popular among students. He was a well-known Small Animal Practitioner of Mumbai ever ready to guide his students in treating difficult cases. We have lost an excellent orator as well as one good human being. A loss to many of us, a fabulous teacher will miss you, sir. Someone so special to veterinary students can never be forgotten, may his soul rest in peace.



Dr. Vasant Gopal Joshi

## Appeal to PPAM Members to Renew Membership

1. Renewal of Annual Membership
2. New Membership
3. Life Membership

Rs. 1500.00 + GST (Rs. 270.00) = Total Rs. 1770.00  
Rs. 1750.00 + GST (Rs. 315.00) = Rs. 2065.00  
Rs. 17500.00 (No GST)

### Bank Details :

Indian Bank; A/c name - Pet practioners association, Branch- Santacruz (w)  
A/c no. 744946564, IFSC: IDIB000S010

(As soon as payment transfer is made please send a message to Treasurer Dr. Anil Vade on 9820016420.  
Please also mention your complete name, date of payment and transaction id)



## PPAM Annual Day Event at Shri Ramkrushna Anandvan, Krushi Paryatan Kendra, Kelye, Ratnagiri

PPAM celebrated its Annual day on 5th and 6th February 2022 at Shri Ramkrushna Anandvan, Krushi Paryatan Kendra, A/P Kelye (Ambekond) Majgaoan, Vimantal Road, Ratnagiri. This event was free for all PPAM Members and their Families. A total of 147 participants thoroughly enjoyed the two-day event.





## PPAM Members invited in the Meeting for Draft of Minimum Standards of Veterinary Practice Regulations

PPAM committee members Dr. Dhananjay Bapat and Dr. Ramani Jairam attended the Second Zonal meeting of the expert Committee for finalizing the Draft of Minimum Standards of Veterinary Practice Regulations. This VCI meeting was held at Anand College of Veterinary Science & Animal Husbandry on the 9th and 10th of January 2022. The meeting was presided by the Cabinet Minister in charge of Fisheries, Animal Husbandry, and Dairying Mr. Parshottam Rupala.

Veterinary Council of India had specially invited the PPAM members for this meeting to get their views on

the draft. The Maharashtra State Veterinary council president Dr. Poharkar, Dr. Ramdas Gade, and other MAFSU office bearers also attended the meeting.

The VCI committee was informed of the various lacunae in the current draft and modifications were suggested for the same. The suggestions were well received.

Dr. Umesh Chandra Sharma, VCI President was presented with PPAM diary and has also been invited to attend our next PPAM function.



## PPAM participation in Team Wiggles open dialogue program

Wiggles.in and PPAM conducted an interactive seminar on Small Animal Practice under the banner of their new initiative, Joining Hands at Hotel Peninsula Grand, Sakinaka, Andheri East, Mumbai. It was well attended by 61 PPAM Members and all team members of Wiggles.in.

Dr. Rajiv Gaikwad (Professor and Head of Dept. of Medicine, Mumbai Veterinary College) spoke on - Epilepsy and Levetiracetam.

Dr. Chandrakant Galdhar (Assistant Professor, Dept. Of Medicine, Mumbai Veterinary College) spoke on - Use of Doramectin.

Dr. Shilpy Minz (Product Manager, Wiggles.in) shared with participants about wiggles.in journey and achievements.

Ms. Anushka Iyer (Founder & CEO, Wiggles.in) thanked all participants for attending and supporting the products and their valuable brand.

This very good informative and interactive session was followed by dinner.







## OUR INNOVATIVE PRODUCTS



Doxysil 100



Doxysil 200



Doxysil 300



Doxysil injection



Thrombofit



Atavon



Gran X Pro



Parvocare



Serasil forte



Sucralpet



Metropet 250



Metropet 500

## Pacemaker implantation in a dog

Dr. Sangeeta Vengsarkar Shah and Dr. Noopur Desai

Case history : Rohny is a 9 year male Chihuahua who came in with a history of diarrhoea and lethargy. His temperature was 99.7°F. He was well hydrated and his physical examination was unremarkable. On auscultation, he had a pronounced bradycardia (Heart rate 40 bpm). ECG showed second degree Mobitz type 2 AV block. The next day his condition deteriorated and he had to be oxygenated through the day. His ventricular rate was between 28- 35 bpm and atrial rate about 100 bpm. On the second day, Rohny came in with marked dyspnoea. X rays showed a normal heart size and a significant pleural effusion which was drained under Ultrasound guidance. The analysis of the pleural effusion showed a sterile transudate. The probable cause of the effusion was acute low output heart failure due to the high grade block. Pre operative blood work was within normal limits. A single chamber, rate responsive pacemaker was implanted a day later under fluoroscopic guidance.

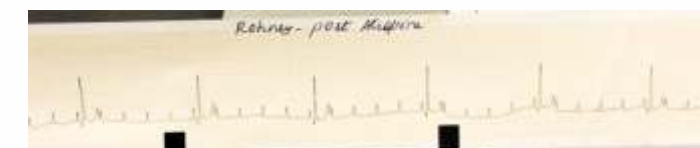
Anaesthesia and CRI: Rohny was maintained on a CRI of dopamine@5mcg/kg/min and flow by nasal oxygenation for around half an hour prior to induction. He was induced with Midazolam@0.2mg/kg and Ketamine@5mg/kg followed by a CRI of Ketamine@10mcg/kg/min and Midazolam@0.2mg/kg/hr. The dopamine CRI was increased to 7.5mcg/kg/min post induction to facilitate circulation and improve peripheral pressures.

Post pacemaker implantation, Rohny was maintained with additional blouses of Propofol@1mg/kg as required during suturing and placement of the battery. Pacemaker implantation: After clipping and sterile preparation of the right lateral neck region, a small incision was made on the skin to access the jugular vein which acted as access point to feed in the pacing lead. The permanent pacing lead was then aseptically passed down along the right jugular vein into the anterior vena cava and then into the right ventricle with the help of fluoroscopic imaging. After positioning into the ventricle, the pacing lead was tested to determine the electrical activity that is required to achieve successful pacing of the myocardium, and the functional appropriateness of the pacemaker. Once satisfied with the functioning, the lead was then screwed into the interventricular septum and the other end was attached to the impulse generator. A subcutaneous pocket for placement of the pacing generator was made on the right lateral neck. Both the pacing lead and the generator were anchored into the subcutaneous neck region with 1-0 nylon. The surgical defect was closed in three layers routinely.

Post pacemaker implantation: After pacemaker implantation, his ventricular rate went up to 90-100 bpm. Since it was a single chamber pacemaker, the atrial and ventricular rates vary slightly but are more or less similar. Post surgery, his creatinine, ALT and



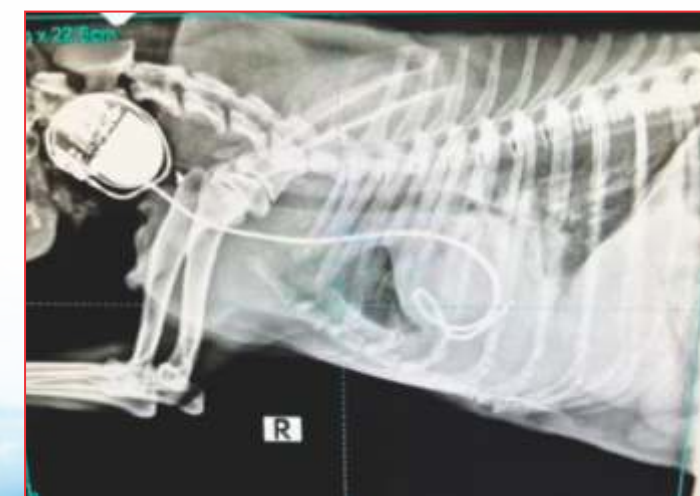
Rohny pre atropine ECG



Rohny post atropine ECG



Jugular access



Fluoroscopic guidance of pacemaker wire into Right Ventricle IVS





Rohney ECG after pace maker implantation

bilirubin values rose to creatinine 5.1 mg/dl, ALT 721 U/L and Bilirubin 5.3 mg/dl respectively. His blood tests for tick fever panel (PCR) showed Babesia gibsoni. He was treated with subcutaneous fluids, triple therapy with Doxycycline, Metronidazole and Clindamycin. He was anorexic but otherwise alert and responsive. One week post surgery, Rohney showed a significant improvement in appetite. Kidney function went back to normal. ALT decreased to 370 and creatinine to 1.4 mg/dl. His activity level is normal and he is currently on triple therapy for B. gibsoni.



Team

Acknowledgements: Dr. Ashish Nabar, for helping with the pacemaker implantation. Dr. Larry Tilley for his inputs on the procedure and anaesthesia. Dr. Sanjana Karve for anaesthesia during the procedure. Team of Pawsitive Wellness Centre. Dr. Radhika Sarkar (Ultrasound guided pleural tapping), Dr. Shravani Bishnoi, Dr. Salil Kudalkar & Dr. Shreya Pandey.

## PPAM members Participations in the 44th ISVS Congress & National Symposium held at Pantnagar, Uttarakhand.

Department of Surgery & Radiology, College of Veterinary Animal Science, Pantnagar GBPUA&T, Uttarakhand organized the 44th ISVS Congress & National Symposium on "Recent Trends in Surgical and Imaging Techniques for Enhancement of Productivity and Health Status of Farm and Pet Animals" from

February 24-26, 2022. Veterinary surgeons from all over India participated in this conference. PPAM members also participated in this National Congress. Following are the highlights of the participation of PPAM members.



Dr. C. C. Wakankar was Chairman Small Animal Surgery Session



Dr. D. U. Lokhande was bestowed with the Fellow of ISVS.



Dr. Eunice Thomas, Dr. S. D. Tripathi, Dr. G. S. Khandekar, and Dr. D. U. Lokhande were awarded the Gold medal for Best oral presentation on Clinical Evaluation of laparoscopic-Assisted technique for surgical management of gastro-intestinal affections in dogs in small animal surgery session.



Dr. G. S. Khandekar presented the lead paper on Minimally Invasive Surgery (MIS) Challenges and Opportunities in the new millennium in the Radiology and Imaging session.



Dr. S. V. Vishwasrao presented the lead paper in the inaugural Theme session on Artificial Intelligence, Veterinary Surgery, and NEP 2020.





## Classification/Characterization of corneal ulcers

**Dennis Brooks DVM, PhD**

Diplomate, American College of Veterinary Ophthalmologists Professor Emeritus, University of Florida.

### CLASSIFICATION/CHARACTERIZATION OF CORNEAL ULCERS

Superficial ulcerations or abrasions should heal rapidly if they do not get infected. They can be traumatic in origin. It has been shown that normal horse corneal epithelium migrates at 0.6 mm per day. We guess that the dog and cat are similar or faster. The following types of ulcers will be covered in detail: recurrent superficial corneal erosions; deep stromal ulcers; fungal keratitis; descemetocoeles; perforating ulcers (iris prolapse); and corneal lacerations (superficial and full-thickness).

There are multiple causes of corneal ulcers. Corneal ulcers can result from mechanical causes such as traumatic abrasion; corneal or eyelid foreign bodies; and eyelid anomalies (entropion, distichia/districhiasis, ectopic cilia, and trichiasis). Infectious etiologies also cause corneal ulcers. Infectious organisms can be bacterial, fungal, or viral. Culture and sensitivity are important diagnostic tools to use with infectious ulcers.

Keratoconjunctivitis sicca (KCS or "dry eye") can result in corneal ulceration. This is especially true with cases of acute onset KCS, in which corneal ulceration can occur rapidly and progress quickly. Ulcers are less common with chronic KCS.

Bullous keratopathy results in rupture of epithelial bullae that form with chronic corneal edema. Ulcers result from the rupturing of the bullae. These ulcers can range in size from small to very large and are variably painful. This is a devastating disease in the cat.

Exposure keratitis can result from either neuroparalytic disease (facial nerve paralysis, resulting in an inability to blink) or from neurotrophic disease (paralysis of ophthalmic branch of trigeminal nerve; corneal sensation is important to healing of corneal ulcers).

The majority of animals with corneal ulcers present with pain as evidenced by blepharospasm. Corneal sensation is one of the major protective factors that the eye exhibits. Corneal sensory nerves are located mostly in the superficial cornea, and the nerves lose their myelination as they cross from the periphery into the center of the cornea. An "axon reflex" is thought to exist in the cornea such that when corneal touch and pain receptors are stimulated, miosis of the pupil, hyperemia, and increased protein levels in the aqueous humor occur. The axon reflex is responsible for the

clinical signs of anterior uveitis observed with painful corneal conditions. These results appear to be mediated by prostaglandins, histamine, acetylcholine, and possibly substance P. Other clinical signs seen commonly with corneal ulceration include epiphora, photophobia, and corneal edema, causing a change in transparency.

Culture and sensitivity should be performed routinely when an ulcer is infected or "complicated." Not all small animal ulcers need to be cultured the first time you see the patient. However, if the corneal ulcer appears to be "melting" or if the ulcer has not responded to proper treatment, these ulcers should be cultured.

Schirmer tear test and/or phenol red thread test should be performed on all canine patients presenting with corneal ulceration. A large percentage of dogs with dry eye with initially present with corneal ulceration. An eye with an ulcerated cornea should have excessively high tear production resulting in epiphora. If the Schirmer tear test value is in the normal range or similar to the normal fellow eye, then KCS should be suspected.

Cytology can be performed using topical anesthetic. Remember to collect culture samples and perform Schirmer tear tests prior to applying topical anesthetic, as the anesthetics can interfere with interpretation of results.

ALL ulcers should be stained with fluorescein and sometimes with Rose Bengal. Fluorescein stain (which is hydrophilic) will adhere to exposed stroma, but will not stain epithelium or Descemet's membrane. Fluorescein does not stain Descemet's membrane (dark spot).



**Dennis Brooks DVM**

### THERAPY OF CORNEAL ULCERS:

There are multiple steps in the treatment of a corneal ulcer. The deeper the ulcer, the more aggressive is the medical and likelihood of surgical therapy. The etiology is determined if possible, and it is then removed or eliminated. This means evaluating the eyelids and eyelashes, tear production, corneal culture, and corneal cytology.

0.5% Cidofovir- BID!! Is used for herpes keratitis in cats.

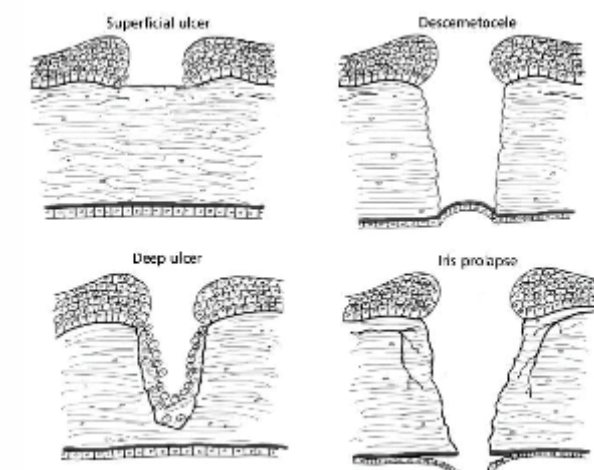
Broad-spectrum antibiotics are usually administered; culture and sensitivity tests can be a guide to selection in recurring, non-healing, or infected ulcers.

Prevention of collagen breakdown and ulcer progression is also important in ulcer therapy. Collagenases and proteases are derived from leukocytes in the tears and wound. This can be powerful in the destruction of corneal stroma. There are several drugs that can be used to help inhibit protease activity. Serum contains an alpha-2 macroglobulin with anticollagenase activity. Blood is drawn from the patient or an animal of the same species, spun down, and serum drawn off and stored in the refrigerator in a dropper bottle or serum tube for up to 14 days. It should not be stored at room temperature, but at the time of therapy, the dose can be warmed to room temp immediately before administration. Serum

is non-toxic, and should be used as many times a day as possible. EDTA (0.17%) can be given several times a day as well. Acetylcysteine (510%) is used topically for its collagenase and protease inhibiting properties. Acetylcysteine is unstable at room temperature, so the solution must be kept refrigerated. Frequency of treatment is decreased from every 1 to 2 hours for the first few days to 3 or 4 times daily for the next 7-10 days.

Secondary Anterior Uveitis is treated with topical mydriatic/cycloplegics such as atropine BID.

Treatment of deep corneal ulceration and Descemetocoele most often require surgery to provide corneal support. Coverage with one of the various kinds of conjunctival flaps and other biological tissue should be maintained for 10-28 days.



## Success in In-vitro fertilization and Embryo transfer

The first success in In-vitro fertilization and Embryo transfer. (IVF-ET) at Government (BMF) Breeding Mother Farm, Tathawade, Pune, Maharashtra. One Buffalo & four cows are pregnant with IVF-ET. Two more buffaloes & seven cows are also expected to be pregnant.

Embryo Transfer also called Multiple Ovulation and Embryo Transfer (MOET) Technology, is used to increase the reproduction rate of superior female dairy animals. Under the influence of the hormone, the female produces several eggs instead of one egg produced normally. Normally, one can get one calf from superior female dairy animals in a year. But by using MOET technology, one can get 10-14 calves in a year from a cow/buffalo.

In-Vitro Fertilization (IVF) Technology also called Ovum Pick-up and In Vitro Embryo Production (OPU-IVEP) Technology, is an advanced reproductive technology for multiplication of superior female germplasm at a much faster rate. Using this technology, embryos are

produced under in vitro conditions i.e. inside the laboratory instead of in a womb/ uterus. Using MOET technology one can get 10-14 calves from superior female dairy animals in a year.

Congratulations to Dr. Jawane, Dr. Sangale, Farm Manager & team members. Congratulations to the entire team from the PPAM family.



*IVF-ET team at BMF, Tathawade, Pune.*



Wipe Out oral suspension is an advanced broad-spectrum anthelmintic suspension with optimum palatability for puppies & young dogs.

## Wipe Out

Deworming Suspension  
For Veterinary Use

**Dosage :** 1 ml/kg body weight orally for puppies and young dogs Or as directed by veterinarian.



Presentation: 20 ml bottle in monocation with measuring dropper

## Yeszym

**Alpha Amylase**  
- To digest starch which provide energy in the form of glucose.  
- Break down long chain carbohydrates such as starch glycogen which is the energy storage molecule in dogs and cat tissue.  
- Amylase-helps breakdown food in small intestine

**Pepsin**  
- Helps to breakdown proteins components  
- Pepsin used to treat gastrointestinal ulcer in dogs

**Dosage :**  
Small breeds  
3-5 ml. daily  
Large breeds  
5-10 daily



Packing : 200 ml / 30 ml. Drops

## Nowry-Coal

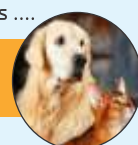
**Activated Charcoal Suspension**

100 ml

Natural Detoxifier  
Improves Digestion  
Prevents Diarrhoea  
Improves Gut Health

Supports Healthy Hair, Skin & Nails ....

**EXTRA BIOTIN**  
NOWRY-H



### Biotin

Aide a dog with dry skin which is common reason in pets  
Its called Vitamin H which your pets cannot Manufacture themself

**Average Daily Usage :**  
Dogs :  
1 ml/kg body weight  
Cat :  
0.5 ml/kg body weight



Face to Face With Modern technology

## Petmox-LA

Amoxicillin Trihydrate 200mg/ml

With 2-pyrrolidone vehicle  
Clear Solution

Rare Long Acting Amoxicillin in India

**Dosage :**  
IM Injection  
5-10 mg/kg b. wt. once in a 48 hrs.

**Safety :**  
Safe in Young and Pregnant pets.

The laser Beam Approach Antibiotic

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Skin & Coat Supplement

- Controls hair fall
- Shiny coat
- Healthy skin

Net Wt. : 425 ml  
Salmon Oil

**Charcol Shampo Natural Detoxifier**  
**Deep Cleansing & Clean Impurities**

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Sector -5, Kharghar, Navi Mumbai 410 210.  
For Product Inqui : Mob. : 9967200337/ 9820579542 / 9419184115  
Email : [chandrarakas004@gmail.com](mailto:chandrarakas004@gmail.com)

## Winter school on "Advances in Minimally Invasive Diagnostic and Imaging Techniques in Veterinary practice" at Bombay Veterinary College from 1.2.2022 to 21.2.2022

The Department of Surgery and Radiology, Mumbai Veterinary College, under the Capacity Building Program of Agricultural Education Program of ICAR, New Delhi, conducted a 21-day winter school on "Advances in Minimally Invasive Diagnostic and Imaging Techniques in Veterinary practice" from 1st-21st February 2022. Dr. G. S. Khandekar, Professor Department of Surgery and Radiology was the course director of the winter school. Dr. S. D. Tripathi, and Dr. S. V. Gaikwad, were the coordinators for the winter school. During this winter school, 25 participants from all over India took part. Live Demonstrations and Hands-on practice to the participants were given on Laparoscopy, endoscopy, bronchoscopy, and otoscopy. They were also given hands-on training and demonstrations on USG, Echocardiography, Digital Radiography, and Computer Radiography as well as CT and MRI. Visit various centres of higher learning and collaboration such as KEM hospital in Parel and ATREC centre in Navi Mumbai were also arranged. Field Visits to Matheran and field exposure to various surgeries and diagnostic procedures in equines were also arranged. Lecture of Various eminent faculty from other institutes included:

1. Dr. Sanjay Oak Hon VC Dr. D. Y. Patil University
2. Dr. Padma Badhe, Professor of Radiology, KEM Hospital
3. Dr. Ramen Goel, Metabolic Surgeon
4. Dr. Keshav Kale, Eminent Cardiologist from D. Y. Patil school of Medicine
5. Dr. Uddhavraj Udhehia, Laparo-Gynaecologist, Hiranandani Hospital
6. Dr. S.D. Tripathi, Dr. Shahir Gaikwad, Dr. R. R. Rohi and Dr. (Mrs) S. A. Chauhan were the course coordinators
7. Dr. D. B. Patil, Director of research Kamdhenu University and Dr. Jitendra Mahindroo, Professor, GADVASU were invited as the expert external faculty
8. Col. Prof. Dr. A. M. Paturkar Hon'ble VC MAFSU and Associate Dean Dr. A. S. Ranade extended all support and encouragement

Foreign Faculty delivered lectures in Online mode.

1. Dr. Shantibhushan Jha, ACVS
2. Dr. Ameet Singh, Professor, University of Guelph





# Description of cloacoscopy in the loggerhead sea turtle (Caretta caretta)

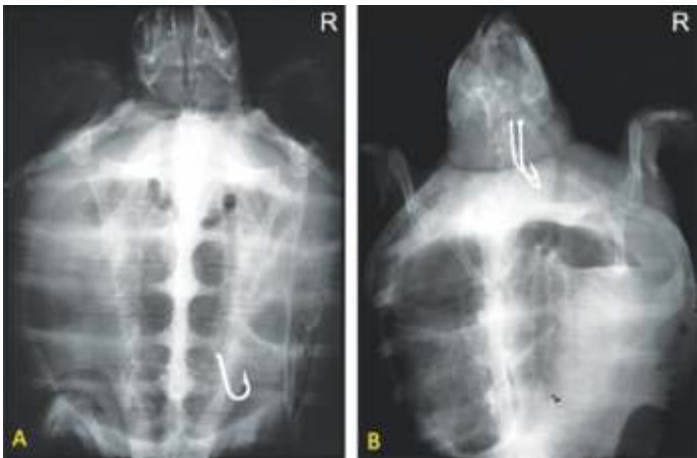
Filippo Spadola<sup>1</sup>, Manuel Morici<sup>1</sup>, Matteo Oliveri<sup>2</sup>, Zdenek Knotek<sup>2</sup>

<sup>1</sup> The University of Messina, Department of Veterinary Science, Messina, Italy

<sup>2</sup> University of Veterinary and Pharmaceutical Sciences Brno, Faculty of Veterinary Medicine, Avian and Exotic Animal Clinic, Brno, Czech Republic.

The aim of the study was to describe cloacoscopy in the loggerhead turtle (Caretta caretta) and to evaluate its efficacy in clinical practice. Cloacoscopy was performed on 31 turtles, 23 females and 8 males. Thirty minutes before anaesthesia, meloxicam (0.4 mg/kg) was administered intramuscularly. Turtles were anesthetized with a combination of 0.04 mg/kg dexmedetomidine and 4 mg/kg ketamine administered intramuscularly. Cloacoscopy was performed with a diagnostic telescope (10 mm diameter, 30 cm long, 0°,

with an operating sheath) or with a flexible colonoscope (13 mm diameter, 160 cm long). Turtles were placed in dorsal recumbence and an endoscope was inserted through the vent. In the distal part of the proctodeum, phallus or clitoris were easily visualized. A finger and thumb were placed around the vent to act as a valve to control the fluid infusion. Flushing the cloaca with warm saline and 0.6% lidocaine allowed a clear view. The urethral orifice was located centrally within the urogenital sinus. Further proximally, the slit of the urodeum with the distal sphincter of the colon could be visualized. Passing gently through the urethral orifice allowed direct visualization of the urinary bladder. After withdrawing and re-directing the endoscope into the coprodeum, the terminal part of the intestine was reached. From 31 loggerhead turtles examined, fishing lines were found in 23 animals. Cloacoscopy proved to be a feasible diagnostic method and it is suggested as a routine diagnostic tool for clinical assessment of loggerhead turtle patients.



Whole-body radiographies of two female loggerhead sea turtles (Caretta caretta). Note the presence of foreign bodies (fishing hooks) in both radiographs. In the first turtle (A) the hook was trapped in the distal part of the intestine. The second turtle (B) had two hooks trapped in the oesophagus. The presence of hooks was the main cause of stranding.

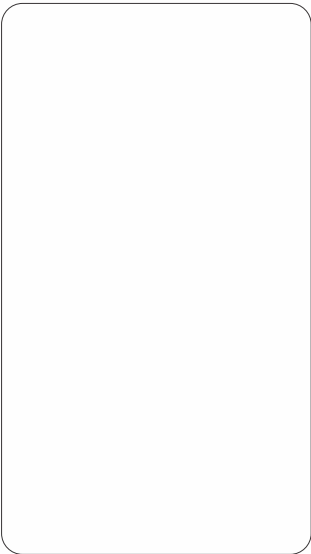


Cloacoscopic appearance of the genitals in loggerhead sea turtles (Caretta caretta). Note the appearance of the clitoris (arrow) in an adult female loggerhead turtle (A), and of a phallus (asterisk) of an adult male loggerhead turtle (B). Note the different appearance of the phallus, bigger in size and shape.)

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