#### **April - June 2019**

**BULLETIN OF THE** 

## PET PRACTITIONERS ASSOCIATION OF MUMBAL

(For Circulation amongst PPAM Members)

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#### IF NOT DELIVERED, PLEASE RETURN TO

The Secretary, PPAM.
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The gruesome incident in a Medical College in Kolkata on a young doctor prompted a severe reaction from the medical fraternity. PPAM also joined the protest and stood strongly in support of our medical doctors.

'No physician, however conscientious or careful, can tell what day or hour he may not be the object of some undeserved attack, malicious accusation, black mail or suit for damage'

The above paragraph from a reputed Journal from the USA, was written 135 years ago. Reports of violence against doctors, sometimes leading to grievous hurt or murder, are making headlines across the world. More often than not in India, pet-owners and their family members, friends could be violent towards veterinarians. Sometimes unknown apparently sympathetic individuals, political leaders and political parties take the law in their hand. One of the important dimensions of violence to the doctors in government and corporate hospitals is the feeling of wrong doing by the doctors for financial gain or for avoiding his/her duties. Anxiety, long waiting period before the patient could speak to a doctor and the feeling that doctor is not giving enough attention to his/her patients engender frustration giving rise to violence. Majority of the veterinary clinics and hospitals in India do not have good grievance addressal system in place. Legal procedure in India also takes



# PPAM stands strongly with Medicos against Violence

inordinately long time. Most of the time, the violence refers to verbal abuse, vandalism and physical threat. There is general deterioration of the morality ethics coupled with rise of pseudo intellectuals. Several prescriptions for preventing violence to doctors have been provided in the literature starting from changing the curriculum of study, developing more communication skills, understanding by taking note of petparents who could be violent, being cautious at violent venues, getting ready to exit from the scene if situation demands, educating pet-parents and their relatives and improving veterinary

It is well known that a senior doctor faces less violence than junior doctors. Long waiting hours and doctor's behaviour towards patients and relatives are important contributors to aggression.

Doctors probably should try to optimize and reduce long waiting periods for the patients in the waiting rooms and try to



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improve pet-parent contact as much as possible. Use of digital technology, mobile phones, may be useful to achieve this end. For example, it has repeatedly been seen that long queues in the hospital, lack of communication from the doctors and opaque billing systems are important predictors of violence in India. Both digital and mobile technology can substantially help in this area. Employment of adequate number of doctors and other steps to ease the rush of patients and long waiting hours, use of computer and internet technology, hospital security should be strengthened and it needs to be properly interlocked with nearby police station, no arms/ammunition by pet-owners or their relatives should be allowed inside the hospital, there should be transparency on rates of different investigations, rents and other expenses in the hospital, there should be a proper complaint redressal system in the hospital.

Modern medicine is neither cheap nor 100 per cent effective in curing the disease in all cases. There should not be over-expectation on the outcome of the treatment in a serious cases. Some patients will make it, some patients will not. This should be clearly understood.

There should be an understanding that vandalism and violence in a hospital or clinic is a criminal offense and any civilized society should have low tolerance for such heinous acts. Hardly social leaders are seen to condemn such violence today, and surprisingly sometimes they try to justify the situation. It is the responsibility of both print and electronic media not to sensationalize the news. Medicine which includes veterinary medicine is not a black and white subject and so also its management. Diagnosis of a patient is essentially hypothetico-deductive process, and with new evidence through investigations and knowledge, the diagnosis of some of the cases continues to be refined.

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However, whatever the diagnosis be, the management of patient generally includes such uncertainties into account and treatment continues. The government should punish unlawful behaviour of anybody who harms the doctor and vandalizes the hospital.

Small and medium private veterinary care establishments, which provide the bulk of veterinary services, are isolated, disorganized and vulnerable to violence. The Prevention of Violence Against Medicare Persons and Institutions Acts, which have been notified in 19 states in the past 10 years, have failed to address the issue in medical field worst is the veterinarians are not included. To prevent violence against doctors, government spending on healthcare must be increased and the Indian Penal Code should be changed to provide for a tougher penalty that could act as a deterrent to violence against doctors.

Very relevant points have been pointed by human physicians on the reasons for violence which veterinarians can have a serious thought.

- 1. Absence of Veterinary Emergency training facility at post graduate level.
- 2. Inadequate support staff and facility to handle emergency cases.
- 3. Serious gaps in communicating with pet owners.
- 4. Absence of senior doctors at odd hours to handle critical patients.
- 5. Clinics treating critical cases which actually require hospitalisation.
- 6. Not so good image of doctors portrayed in social media.

#### **Snakebites in Animals**

#### Dr. M. V. Khadilkar

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#### INTRODUCTION

We tend to believe that the problem of snake bites is limited to jungles and rural areas, however, the incidence of snake bites is increasing in towns and cities due to rapid urbanization and destruction of forests and habitat for snakes. The problem gets compounded by the fact that the newly developed localities lack proper facilities of waste disposal resulting into garbage dumps attracting rodents which in turn attract snakes to the localities. Thus, the chances of snakes coming in contact with humans and animals have increased.

Amongst all the venomous animals, snake bites represent the major cause of envenoming in the world. Snake bite is an acute life threatening time limiting medical emergency. Although there is no epidemiological data on incidences of snake bites/deaths in humans, however, it is estimated that 35000 to 50000 deaths due to snake bite occur in India every year. When there is such a high incidence in humans, there would be equally high occurrence in animals with farm animals such as cattle/Buffaloes, sheep/Goats having more chances of bites than pets, however, extent of snake bite problem in domestic animals is not known.

There are over 200 species of snakes reported from India, out of which 52 are known poisonous. However, there are only four major medically important snake species in our country popularly known as "BIG FOUR" namely Indian Cobra (Najanaja), Russell's Viper (Viperarusselli), Common Krait (Bangarusceuruleus) and Saw Scaled Viper (Echiscarinatus). Out of these four, Cobra and Krait venom is

neurotoxic and venom of both the Vipers is haemotoxic.

Venom is a modified form of saliva. It is a mixture of many different proteins having toxic/non-toxic & enzymatic activities. Primary function of venom is for obtaining food by immobilizing and killing of prey. Snake venoms are not single toxins but cocktail of many components: enzymes, polynucleotides, toxins, non toxin proteins, carbohydrates, metals, lipids, free amino acids, nucleotides and biogenic amines. Venom also helps in digestion process by predigestion of body tissues of prey. Venom is essential for survival as an important tool for self-defense & offence on the enemy. The action of venom is the combined effect of all components present in the venom. Venom contains diverse pharmacological and clinical properties like neurotoxicity, myotoxicity, cardio toxicity, coagulant &hemostatic, edema induction, hemorrhagic and direct action on vital organs.

#### **DIAGNOSIS**

Diagnosis of snake bite can be done by history and circumstantial evidence, Local and systemic signs and examination of dead snakes if brought by the owner. In animals, hair may hide the typical fang marks. Cobra and Krait have small fangs whereas Vipers have big foldable fangs.

**Local envenomation -** More pronounced in Viper bites and Cobra bites

- (i) Presence of bite marks with or without oozing of blood, blistering and change in color of skin.
- (ii) Rapidly progressive or massive swelling of the bitten limb within few hours of bite.

**Systemic envenomation -** Syndromic classification such as neurotoxic and hemotoxic can be done depending on the visible clinical signs and symptoms of envenomation

- (i) **Neurotoxic syndrome** This is more pronounced in Cobra and Krait bites. In this syndrome signs of neuroparalysis, difficulty in swallowing, drowsiness, drooping of head, shallow breathing, ptosis, ataxia, respiratory paralysis and generalized flaccid paralysis are seen.
- (ii) Hemotoxic syndrome This is more pronounced in Viper bites and there will be spontaneous systemic bleeding, nausea, vomiting, abdominal pain and abdominal tenderness suggestive of gastro-intestinal or retroperitoneal bleed and/or renal damage, coagulopathy detected by 20 min WBCT with or without external bleeding and shock

In large animals like cattle and buffaloes, snake bite fatalities are less because of the fact that body weight of these animals is much higher than the lethal dose of venom injected during bite. Horses are more sensitive than cattle. In decreasing order, sensitivity to snake venoms is reported in literature as horse, sheep, goat, dog, pig, and cat. Animals generally get bitten on the nose, face, or neck by snakes or

sometimes on the legs. Dogs and cats get bitten more on body than legs due to smaller size.

The signs of snake bite depend on the type of snake and the amount of venom injected. The type of biting snake is important because the composition and quantity of venom injected during a bite varies and it is a deciding factor in progression of events. The location of the bite is also important factor as snake venoms can cause systemic envenomation only after it enters the circulatory system and spreads throughout the body causing pharmacological effects. Bites closer to major vessels, head and areas of large blood supply are potentially far more serious than bites to the limbs and body. Chances of fatalities are more when the snakebite is on the face, head and neck than limbs or body.

Size and species of the victim and its age and general health and condition are also important determinants in the severity of snakebites. Generally larger animals in good nutritional condition without comorbidities seem to recover from snakebites faster. Young and weak or sick animals are at a much greater risk of possible death or prolonged recovery and these victims should be treated aggressively from the onset.

Dogs are especially at risk of snake bites because of their curious nature and because of the relatively small size as compared with the amount of venom injected. In fact, fatal snake bites are more common in dogs than in any other domestic animal. Cats are bitten less due to their natural instincts. Smaller animals are more likely to be bitten on the body.

#### **TREATMENT**

Intensive therapy should be started as soon as possible because irreversible effects of venom begin immediately after envenomation. The first 1 hour is crucial in pets with most deaths occurring during this time.

Anti-Snake Venom Serum/Snake Venom Antiserum/Snake Antivenin which are all synonymous is the only specific antidote for snake envenomation and prompt administration of adequate dose of Antivenom is of paramount importance for neutralization of unbound circulating snake venom components for early response to treatment. The antivenom available in India is equine derived polyvalent antivenom acting against venoms of big four snake species in two forms-Lyophilized form is available in 10 ml glass vials along with Sterile Water for Injection I.P. 10ml for the purpose of reconstitution. It is stable at room temperature and does not require special storage facilities. It has a shelf life of four years. Liquid form of product is available as ready to use solution in 10 ml glass vials. It should be stored at 2 to 8° C. Do not freeze and keep protected from heat. It has a shelf life of two years.

Each ml of Snake Venom Antiserum neutralizes minimum of 0.6 mg. of the Indian Cobra venom, 0.45 mg. of Common Krait venom, 0.6 mg. of Russell's Viper venom and 0.45 mg. of the Saw-Scaled Viper venom.

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#### **DOSE AND ADMINISTRATION**

As the clinical signs can vary due to many factors such as type of snake, time of reporting after bite, size of snake, amount of venom injected during bite, seasonal & regional variation in venom composition etc., no accurate dosage can be recommended. However, considering the average quantity of venom injected by snake at the time of bite and degree of envenomation, in dogs/cats it is recommended to administer initial dose of 5-10 vials of antivenom by slow intravenous infusion after dilution with Normal/glucose saline constant monitoring of the vital signs at frequent intervals during initial 1 hour is recommended. Requirement of further dosing depends on extent of reversal of coagulopathy confirmed after 6 hours of antivenom administration by WBCT in hemotoxic bite OR if symptoms persist or worsen or in respiratory failure in neurotoxic bite after one hour of Antiserum administration. If the blood is still incoagulable OR no signs of reversal of paralysis are seen, a further dose of 5 to 10 vials of Antiserum should be administered by slow i.v. route only. Administration by i.m or locally around the bite wound is not recommended.

Large animals generally require much less dose of antivenom and usually responds well with the first dose and does not require repetition. Pets that are doing well after 24 hours usually survive, so long as secondary infection and

other complications can be effectively controlled. Acute or Chronic Renal failures are common in Russell 's viper bites and requires close observation on urine output and hydration. Antivenom is good in saving life by acting on systemic envenomation but the local tissue damage requires much more time for the wounds to heal sometimes requiring surgical intervention such as debridement etc.

Antivenom is usually available in pharmacies near human hospitals treating snakebites.

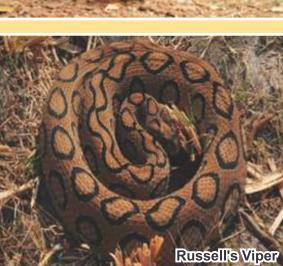
#### **SUPPORTIVE TREATMENT**

It includes adequate hydration, ventilation (Maintenance of airway is essential in neurotoxic bites due to impending respiratory paralysis), dialysis (Renal failure is a common complication in haemotoxic bites and might require dialysis), neostigmine in Cobra bites, and surgical intervention if required. In addition above, administration of antibiotics and Tetanus toxoid may be necessary.

Antivenom being derived from equines is heterologous to humans can give either early or late reactions. Inj. Adrenaline should be always kept handy, before starting the dose of antivenom. Prophylactic use of hydrocortisones and Pheniramine maleate can be done to prevent adverse reactions to antivenom.

#### "Big Four" Snakes of India









#### When Do I Refer A Renal Patient?

#### Dr. Ekta A Thakkar

M.V.Sc, Certified in Extracorporeal therapies. (UC, USA). Member of American society of Veterinary Nephrology and Urology.

This small write up aims at building up a basic understanding for the vets and also pet parents who would be willing to consider IHD (Intermittent heamo dialysis) as a treatment for the renal insult of their pet. Its been 7 years since I started to dialyse animals, but still nothing seems to have changed with respect to the way animals are referred or considered for undergoing dialysis. As a result, many who actually could have battled their renal insults and survived with the help of IHD loose the golden opportunity. Hence, I was prompted to pen down this write up to help understand the aim of this treatment and referral practices for IHD.

AIM OF DIALYSIS. Humans vs animals (Chronic Kidney Disease) having a creatinine of 5mg/dl or more are usual candidates who undergo dialysis thrice a week, aim of dialysis is to perform the function of the kidneys and keep patients alive till they get a donor for transplant.

VS

Animals — CKD — having a compromised quality of life independent of the value of creatinine. Here aim of dialysis is to perform the function of the kidneys to ameliorate the uremic symptomology and offer them a good quality of life unlike any other normal dog. They can be dialysed for many months to a year depending on how sooner or later the patient comes up with complications as they are pulled against time and also commitment of the pet parents.

Renal transplant is not an option for dogs considering very high rate of organ rejection, availability of a donor from the same lineage and a whooping cost of 50 lakhs. Pet parents should be explained this very well and the option of transplant shouldn't be seeded in their heads to avoid further complications.

#### **Acute Kidney Infections**

Humans and animals - acute patients are dialysed to buy time and keep patient alive till the kidneys recover, thereby giving kidneys adequate time and a suitable environment to recover because renal recovery takes many weeks or sometimes even months, if not dialysed patient dies due to effect of uraemia on various vital organs till the renal recovery occurs, if it is to.

To sum it up IHD can expand the window of opportunity for an unlimited period of time, buy time if renal recovery is thought to set in or to prolong life otherwise, ameliorate clinical signs during recovery period and improve the quality of life. IHD is associated with a better outcome if resorted to early in AKI.

The do's and don'ts of referring a renal patient



**Dr. Ekta A Thakkar** 

#### Who should be considered for dialysis?

- Anuric for 24-48hrs, Severe hyperkalemia, Sever fluid overload (with concurrent low urine production), Severe acid-base disturbance, Severe or progressive azotemia, Oliguria/anuria and Uncontrolled clinical signs
- Points to be considered. Is the patient in position to undergo the procedure, Hematocrit, Organ involvement, Pressures, Sepsis, Bleeding tendencies and Renal recovery. Are you expecting a complete recovery? Etiology n chronicity are important factors. Donot hurry to classify acute, or chronic and incorrectly decide the fate of the pet. Trust me you should'nt or cant!!!!.
   Consider hemodialysis as the first option and not the last resort patient found to have a renal insult → evaluate thoroughly → hydrate only when dehydrated (after checking electrolytes), if anuric and euhydrated or volume overloaded consider attempting diuresis, try to monitor abnormal life threatening parameters → watch for 48 hrs → re do labs → stable or better → treat if one has experience in handling renal patients or → refer
- If referred early when diagnosed → can be evaluated
   → can be dialysed, when the body hasn't
   decompensated to an extent where the patient cannot
   take the procedure or there are no or slim chances of
   revival or can be evaluated and treated to stabilise
   without hemodialysis. Examples cited below represent a
   typical AKI and CKD dialysis scenario upon timely
   referral

Example of pet SARA – AKI- 9 year female German shepherd had pyometra induced AKI  $\rightarrow$  post overio-hysterectomy renal injury continued to progress to a creatinine of 13mg%  $\rightarrow$  referred a week post surgery  $\rightarrow$  dialysed (3 sessions)  $\rightarrow$  stabilised to a creatinine of 1.71mg%  $\rightarrow$  6 months post IHD creatinine of 1.49mg%, she is 11 years as on today.

CHAOS – CKD – 8yr male Labrador PCV of 22 %, creatinine of 7mg%, BUN 61 mg% (was diagnosed a week ago)  $\rightarrow$  stabilised for a month  $\rightarrow$  PCV 32%, creatinine 10mg% - started to progress with compromise in quality of life  $\rightarrow$  owner elected to support him on IHD  $\rightarrow$  dialysed for almost 6and a half months to give an ESRD patient a good quality of

life and pet parents those extra months to be with their pet.

Refer the patient for a renal consult not just to dialyse: Haemodialysis is a treatment modality which is a part of therapy for renal patients, not the whole and sole of the therapy. It involves conventional management with or without use of extracorporeal therapies. In our experience most of the patients call asking we want only dialysis as fluids are already on, as qualified vets it is important to understand fluids and diuretics are not the main stay of treating renal patients, there is a lot more to it. A renal patient if managed appropriately even conventionally upon diagnosis can have prolonged survival with a good quality of life.

As professionals we need to understand that any procedure needs prior evaluation and there shouldn't be terms such as urgent dialysis - patients who have been treated for long (one week can be a very long time for an AKI oligo anuric patients) and have decompensated to the extent where the patient is on the verge of collapsing cannot be referred for dialysis as the last resort, dialysis doesn't work that way. As a surgeon needs to evaluate prior to performing any procedure to ensure the safety of the patient and risk to benefit ratio of the procedure, so does dialysis, it is the call of the vet performing the procedure to decide what is in the best interest of the ailing.

This is a standard example of patients just managed on fluids, patient who is decompensated to the extent that the chances of recovery are slim, it is disheartening to see such patients on regular basis, when they could have been managed well if managed well when diagnosed to prolong their survival and slow down progression.

Example: 1.5year lhasaapso female, diagnosed with azotemia on 28 sept 2018, creat of 4.7mg%, BUN 70mg%, PCV 38.2, plts 5lac, wbcs 19800, was advised renal diet and fluids every day to alternate days, on 16 march 2019 we see the patient with creat of 10.5mg%, BUN 140mg%, pcv 13.8, k -7.8mEq/l.

Examples of CKD patients managed conventionally -

PLUTO 2 year, male intact, Pluto was advised euthanasia on 10july 2015 → checked on 12thJuly 2015, parents didn't opt for IHD, he was conventionally managed. He is a 6-year-old andsturdy now.

Merry, spitz was 9 years in Dec 2017 when she was diagnosed to have a renal pathology with creatinine hovering around 4mg% - 3mg% with PCV of 38-40%  $\rightarrow$ started being symptomatic in early 2018 → was advised fluids and advised to wait till she meets her sad fate with no further treatment options offered.

In July 2018 on exam she had a creat of 5mg%, BUN 72mg%,hypercalcemic, hyperkalemic, severely hyperphosphatemic, PCV 23%, hypertensive, as on today her creatinine is 4mg% with a BUN of 65mg% with other parameters well under check, she is 11 now.

These are examples of CKD patients of different age groups managed conventionally, creatinine is just a number, how your patient feels is what matters! Having a renal ailment is not a death sentence, early, appropriate measures can ensure better outcomes, (examples cited above are not to offend anyone, their aim is to convey things in an a more gullible way).

parameters	8 July	9 July	10 July	Т	17 Aug	19 July	Nov	Due
	2015	2015	2015		2015	2018	2018	
PCV %	40.6	29.8	30.3	R	34.8	35.6		for
WBCs	22,000	24,300	29,100	Е	11,800	690thou		exam
	thou	thou	Thou		thou			
Plts	1.6lac	80,000	70,000	Α	5.43lac	1.19lac		in
BUN mg%	140	140	140	Т	24	42	48	may
Creat mg%	11.7	12.6	16.3	Е	2.19	2.85	3.5	
SGPT mg%	93	93	80	D	34	35		
IU/L								
						Was down		
						with		
						babesiosis		

#### A Case Study on Non-Seminomatous Malignant **Germ Cell Testicular Tumor Induced Dermatitis**

#### **Madhavi Awale**

Pet Wellness Clinic, Pimple Saudagar, Pune

Coffee, 8-year-old castrated Labrador retriever was any underlying cause. Although recent USG & MRI presented with inability to get-up, joint pain, pyoderma, erythematous & multifocal alopecia, scaling, mild pruritus, hyperpigmentation, pendulous prepuce and gynaecomastia. CBC and biochemistry test results were normal. Skin scrapping, tape test, hair plucks & woods lamp examinations were positive for Demodex canis & Trichophyton. Initially, we stabilized patient with NSAID & joint supplement. Later, due to non-response to the skin treatment, abdominal USG was performed again to rule-out

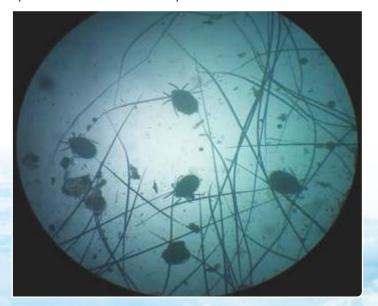
performed by previous vet had shown to be normal. USG revealed two pelvic masses. In exploratory laparotomy, testicular tumour was excised and the second mass was found to be prostatic tumour. Biopsy of testes confirmed non-seminomatous malignant germ cell tumour. Postsurgery, Coffee has shown remarkable improvement in skin & hair coat as well as overall health. This case illustrates the possible relationship between dermatitis, demodicosis and testicular tumour in senile patients.

#### **Trombiculiasis: Case study in a cat**

Dr. Aditi Gupte, Dr. Chetana Pitale and Dr. Makarand Chousalkar

Top Dogs Pet Clinic

Trombicula mites or harvest mites or chigger mites. Causative agents of trombiculiasis in people and animals. Caused by genus Eutrombicula and Neotrombicula. Only larval stages parasitic to mammals. Appear as orange- red specks usually on the feet, head, ears and ventrum. Causes variable pruritis. Larvae live in the soil, affect animals which are in direct contact with the soil. Outdoor scavenging cats and dogs more likely to be affected. Seasonal mites, usually seen in the summer season, called as harvest mites. Affected areas are usually the feet, head and ventrum and Henry's pocket of the ear are favored location for the mites. Orange specks visible to the naked eye.





**Dr. Aditi Gupte** 

Cat Shadow, 4 year old Persian cat, Male neutered, Indoor outdoor Clinical signs variable: asymptomatic to extremely pruritic papulocrustous lesions. Shadow was presented for pruritis, Presence of orange red pin head size lesions on the ears, Erythema and papulocrustous eruptions seen. Sudden



onset of the lesions and pruritis.

Treatment was carried out using by Fipronil spot on application. Short course of antihistamines to alleviate pruritis. Avoiding the cat to scavenge outdoors. Trombiculae or chiggers mites are skin parasites that can infect cats, dogs and people. In this study, the mite infestation was successfully treated with fipronil spot on application.

## Highlights of PPAM Royal Canin Event on Small Animal Clinical Dermatology-III held on 27th and 28th April 2019.

PPAM - Royal Canin Event on Small Animal Clinical Dermatology – III was held on 27th and 28th April 2019 at the Club, Andheri (East), Mumbai.

Dr. Lowell Ackerman DVM DACVD MBA MPA CVA MRCVS an independent consultant, author and lecturer, and Adjunct Professor at Tufts University Cummings School of Veterinary Medicine and co-author of several books (including Five-Minute Veterinary Consult, The Genetic Connection, Behaviour Problems of the Dog & Cat, and Atlas of Small Animal Dermatology) conducted the twoday CE programme. The following topics were covered. Lecture was also conducted on Management of Hemoprotozoan Disease in Small Animals Dr. Mukulesh Gatne. The following topics were deliberated during the two day CE programme.

27th April 2019	28th April 2019		
In-hospital diagnostic testing	Genetic Counselling in Veterinary Dermatology		
Pattern Approach to Dermatologic Diagnosis	Dealing with Dermatophytes		
Understanding & Managing the Allergic Pet Part 1	Common Mistakes to Avoid in Achieving Long-term Success with Dermatology Patients.		
Understanding & Managing the Allergic Pet Part 2	Journey to "Yes": Gaining Client Acceptance of Recommendations		
Standards of Care in Veterinary Dermatology	Management of Hemoprotozoan Disease in Small Animals. (part 2).: 3. Dr. Mukulesh Gatne.		
Management of Hemoprotozoan Disease in Small Animals.: Dr. Mukulesh Gatne.	Case Study Presentations by PPAM members, followed by Q & A		
Case Study Presentations by PPAM members, followed by Q & A	Royal Canin presentation.		























































### Announcement cum Invitation

of

11<sup>th</sup> FSAPAI CE on Companion Animal Practice and

18<sup>th</sup> World Small Animal Veterinary Association (WSAVA)
Continuing Education (CE) Program

Dates: 22<sup>nd</sup> - 23<sup>rd</sup> - 24<sup>th</sup> November 2019

Venue: Hotel Grand Hyatt, Santacruz (E), Mumbai - 400 055

Organized by

Federation of Small Animal Practitioners Associations of India (FSAPAI)

8

Hosted by

Pet Practitioners Association Of Mumbai (PPAM)