



BULLETIN OF THE
**PET PRACTITIONERS
ASSOCIATION
OF MUMBAI**
(FOR CIRCULATION AMONGST PPAM MEMBERS)



JANUARY - MARCH 2023

Padma Shri Award to Veterinarians



Prof. (Dr.) Mahendra Pal (2023)



Dr. Moti Lal Madan (2022)



Dr. Sosamma Iype (2022)



Dr. Kushal Konwar Sarma (2020)



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Editorial

PPAM Bulletin now has an International Presence

The Bulletin of The Pet Practitioners Association of Mumbai which is published quarterly has now crossed international borders. The soft copy and hard copy (850 copies) were already being mailed to all PPAM members in India since 2015. From October to December 2022 issue the hard copy (2500 copies) is now being delivered to veterinarians in India, Nepal, Sri Lanka, Malaysia, Cambodia, Oman, and other Middle East countries. This has been possible due to collaboration between PPAM and Drools India.

We at PPAM are aware that in order to succeed and expand globally we need to be resilient, adaptable, communicative, and resourceful, fully knowing when to seize expansion opportunities. PPAM Bulletin going international is just the beginning.

PPAM is an organization of veterinarians that is making a conscious effort to become more sustainable on a national and international level. Expanding allows PPAM to reach out to veterinarians abroad. Growing overseas gives PPAM access to new veterinarians who may have ideas or difficulties similar to ours and benefit veterinarians mutually. Our pet parents are also traveling internationally with the pets, collaboration, and communications with foreign veterinarians will definitely help veterinarians, pet parents, and ultimately the pets.

Going international will explore possibilities of new educational,

exchange programs, revenue-generating potential and students exchange programs. Veterinarians will have more access to new emerging talent and technology from other countries. Cultures across borders differ which will help all to learn from each other.

Global access through PPAM Bulletin will encourage veterinarians to become more innovative and efficient in their use of resources. For pets and pet parents, international contacts will introduce them to a variety of goods and services not available earlier.

PPAM Bulletin in the years to come will allow veterinarians to learn about ideas, values, and beliefs practiced by veterinarians around the world. It will help broaden our worldview, add to our personal development, and allow PPAM members to be a part of a global veterinary community.

With rich resources of talent and material available in India, it will also benefit other nations. The technical articles in PPAM Bulletin will definitely have the ability to help more veterinarians guide them in their day-to-day practice.

When ideas and work done by Indian veterinarians go globally through the Bulletin it will bring loads of benefits to Veterinarians, not only in PPAM but the entire nation.

International contacts through bulletin will also help diversify the specialties of veterinarians to the next level.

It's time to Think Differently and share Out of Box ideas to attract veterinarians to an ever-expanding, developing our profession, and PPAM is eager to offer the highest quality of continuing programs to veterinarians. At PPAM we understand that we need to include visionary strategies if we have to grow as an organization.

PPAM Bulletin going international is just a first baby step in global expansion efforts for veterinarians in India. So, dear veterinarians, you are welcome to contribute technical articles, your views, and ideas on veterinary and animal-related issues in the PPAM Bulletin and see your ideas and write-ups reaching an international veterinary family.

Padma Shri Award to Veterinarians

Prof (Dr.) Mahendra Pal (2023), Dr. Sosamma Iype (2022),
Dr. Moti Lal Madan (2022) and Dr. Kushal Konwar Sarma (2020)

The Padma awards are one of the highest civilian awards in India. It is a matter of great honour for the Veterinary Profession that Veterinarians are being recognized for their contribution in Nation building.

PPAM congratulates **Prof. (Dr.) Mahendra Pal** Ex-University Professor and Head of Veterinary Public Health, Anand Veterinary college for being awarded the Padma Shri award (2023). Prof. (Dr.) Mahendra Pal, BVSc & AH; MVPH.; Ph.D.; D.Sc., Post Doct. (Belgium); Post Doct. (Japan) FNAVS; FKSVC (South Korea), Founder Director of Narayan Consultancy on VPH. He has published over 750 papers, authored 9 books, contributed 11 book chapters, and developed techniques for the study of fungi that are implicated in the etiology of various clinical disorders of humans and animals. He has collaborated with scientists from several countries.



PPAM also congratulates **Dr. Sosamma Iype** an Indian animal conservationist from Kerala. She was the former Head of the Department of Genetics and Animal Breeding at the Kerala Veterinary University and was awarded the Padma Shri for the year 2022 by the Government of India for her services to conserve the Vechur cow, a native breed of cattle. She devoted her life to the conservation of the Vechur cows. Vechur cow is an indigenous cattle variety of Kerala and a rare breed of Bos indicus, it is the smallest cattle breed in the world.

PPAM also congratulates Karnal-based **Dr. Moti Lal Madan**, a veterinarian who led the team that performed the world's first in-vitro fertilization (IVF) of buffalo calf "Pratham" at NDRI. He was awarded Padma Shri in 2022. He had served as joint director of the NDRI, Deputy Director General ICAR, VC University at Mathura (UP), and Agriculture University Akola in Maharashtra. He successfully introduced embryo cloning in buffaloes in India.



PPAM congratulates **Dr. Kushal Konwar Sarma** famous as the elephant doctor of Assam, who was awarded the Padma Shri in 2020. He is the first Veterinarian to receive the award. The Governor of Assam gave him the title Elephant Man of Asia. Dr. Sarma is a veterinarian who treats elephants and Professor and Head of the Department of Surgery and Radiology at the College of Veterinary Science in Guwahati, Assam. Dr. Sarma had worked tirelessly to treat animals, mostly elephants. He has tamed 141 captive rogue jumbos, and also tamed around 100 wild elephants for treatment and translocation. On average, he treats or tames 750-800 elephants a year.

Dr. Rustam Bharucha retires after 44 years of Practice

Dr. Rustam Bharucha a soft-spoken, gentle veterinarian practicing at Gamdevi has decided to retire on 31.03.2023 after 44 long years of clinical practice. Dr. Rustam graduated from Bombay Veterinary College in 1978 and started his own practice in 1979. He also worked in the pathology Department for 3 years, worked in the surgery department for 1 year, joined as an additional house surgeon in 1982, and resigned from Bombay Veterinary college in 1992. He says he has had a very happy and fulfilling 44 years of practice working as a veterinarian. He mentions that with a heavy heart, he has decided to retire from practice so that he can spend more time with his family and enjoy other interests.



The Entire PPAM family wishes Dr. Rustam Bharucha a very happy, healthy, and great retired family life.



11TH FASAVA CONGRESS

FASAVA 2023

27, 28, 29 OCTOBER 2023
AT HOTEL WESTIN POWAI LAKE, MUMBAI, INDIA





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Category	Super Early Bird Rate 15 th Feb. - 30 th April 2023	Early Bird Rate 1 st May - 1 st July 2023	Regular Rate 2 nd July - 2 nd Sept. 2023	Late Registration 3 rd Sept. - 26 th Oct. 2023	Spot
PPAM and FSAPAI and FASAVA Affiliated Association Members in India	INR 20,000	INR 22,000	INR 26,000	INR 28,000	INR 30,000
Non-Member from India	INR 26,000	INR 28,000	INR 31,000	INR 41,000	INR 51,000
FASAVA / WSAVA - member association (From Region)	INR 20,000	INR 22,000	INR 26,000	INR 28,000	INR 31,000
VET Student	INR 15,000	INR 17,000	INR 19,000	INR 21,000	INR 23,000
Accompanying Persons	INR 25,000	INR 25,000	INR 25,000	INR 25,000	INR 25,000

Non-residential package includes:

Conference Registration Fees + Conference Lunches on 27th, 28th & 29th October, 2023 (Friday to Sunday) + Welcome Dinner on 27th October, 2023 + Banquet Dinner on 28th October, 2023 + Taxes are included + Visit to Trade Area

Important Note

- All registrations are non transferable & non refundable

Residential Packages 2 Nights / 3 Days

(With Accommodation)

Check-in: Friday, 27th October, 2023 at 3:00 pm

Check-out: Sunday, 29th October, 2023 at 12:00 noon

Category	Super Early Bird Rate 15 th Feb. - 30 th April 2023	Early Bird Rate 1 st May - 1 st July 2023	Regular Rate 2 nd July - 2 nd Sept. 2023	Late Registration 3 rd Sept. - 26 th Oct. 2023
PPAM and FSAPAI and FASAVA Affiliated Association Members in India Twin Sharing Basis	INR 32,000	INR 34,000	INR 36,000	NA
FASAVA / WSAVA - member association (From Region) Twin Sharing Basis	INR 36,000	INR 38,000	INR 42,000	NA
PPAM and FSAPAI and FASAVA Affiliated Association Members in India - Single Occupancy	INR 44,000	INR 46,000	INR 48,000	NA
FASAVA / WSAVA - member association (From Region), (With Accommodation) Single Occupancy	INR 48,000	INR 50,000	INR 52,000	NA
Accompanying Persons	INR 30,000	INR 30,000	INR 30,000	INR 30,000

Residential package is inclusive of:

Room at Hotel 'The Westin Mumbai', for 2 Nights - 3 Days Check-in: Friday, 27th October, 2023 at 3:00 pm & Check-out: Sunday, 29th October, 2023 at 12:00 noon + Conference Registration Fees + Breakfast on 28th & 29th October (Saturday & Sunday) + Conference Lunches on 27th, 28th & 29th October, 2023 (Friday to Sunday) + Welcome Dinner on 27th October, 2023 + Banquet Dinner on 28th October, 2023 + Taxes are included + Visit to Trade Area

- **Important Note**
- **Rooms are subject to availability**

Note:

- All accommodations are on Single or Twin sharing basis. Registration is neither refundable nor transferrable.
- Limited accommodation rooms available. Organizing committee will not be responsible for any loss or damages.
- Children less than 3 years old will not charge for entry and registration. Spouse/family members are not allowed to enter the lecture halls.
- PPAM Committees will not be responsible for any loss/damage

Please note:

- No pick up drops from Airport, railways station or bus stand
- The Hotel check-in time is 15.00 hrs and check-out time is 12.00 Noon.
- Early check-in & late check-out is strictly subject to availability.
- Internet, Mini Bar, Room service, laundry and telephones etc will be settled by the guest at the time of check out.
- You are requested to carry a photo ID proof required by the hotel at the time of check-in

BANK DETAILS:

Beneficiary Name: Pet Practitioners Association

Credit Account No.: 744946564 IFSC Code: IDIB000S010

Bank: Indian Bank

PAN NUMBER: AAATP330L

Account Type: Current

GST NO: 27AAATP3330L1ZI

Scan For Payment



Violence against Veterinarians.

A Police Officer, a lawyer and a doctors Perspective



Dr. Bhaskarrao Jadhav (Retd) ACP Mumbai,
Advocate Kewal Chavan and
Dr. S. V. Vishwasrao (Editor PPAM Bulletin)



1. Display prominently in your clinic the phone numbers of the local police station or the mobile number of the Senior Police Inspector of the local police station. (Any staff in

your clinic should be able to view and dial the number in an emergency)

2. Police control room numbers must be displayed so that all the staff is able to access them urgently.
3. CCTV cameras in clinics will help record the incident and there must have a facility for recording the date and time. CCTV footage be preserved for at least one month for follow-up. CCTV camera view should cover all areas where possible interaction with people occurs.
4. If provoked or attacked, defend yourself. Call for help, BUT DO NOT TAKE the LAW IN YOUR HANDS OR COUNTER ATTACK.
5. Keep good and cordial relations with neighbors as they will be first responders or first line of help in an emergency, they may play a key role in witnessing the incident.
6. As a matter of courtesy keep the Public Relations officer of the local police station informed about your name and your practice. Also, submit to them the names and details of staff working in your clinic.

A DOCTOR'S PERSPECTIVE.

Develop cordial relations with pet parents but always present yourself in a professional manner and maintain a professional distance. Always greet the owner cheerfully at the first meeting and every subsequent meeting. This will help develop cordial relations.

Develop the habit of listening to the animal owner. (It's an art to listen without interrupting).

Thoroughly examine the animal, gather complete history, record it on case paper, work more with your hands, eyes, and ears and as less as possible with your mouth.

Try to understand the complaint of the animal owner and think about what best you as a veterinarian can do to resolve it.

If you are able to help him solve his problem or reduce his pet's problem that is good, if not politely tell him that his pet's problem needs different facilities and direct him to a hospital or place or a senior veterinarian where his pet can be attended.

DO NOT attempt any procedure for which your clinic does have an adequate facility. Complications can arise and

then your clinic must be equipped to handle them.

Written consent has to be taken from the pet owner for anesthesia/surgery/or any procedure which involves risk to the life of the animal. Also, mention the approximate cost and give an idea of other alternative procedures.

If the animal is bought to your clinic in critical condition inform the owner in writing and record it on the case paper.

Lack of communication is one of the major causes of misunderstanding between pet owners and Veterinarians. Communicate with pet owners politely, in brief, and in simple layman's language (avoid medical jargon).

If any error has occurred, do not try to hide. Be very truthful to the owner. It helps in the long run.

A LAWYER'S PERSPECTIVE.

1. The strengthening of the bond between humans and animals has changed the landscape of the veterinary profession.
2. This has, in turn, led the legal system to assess damages in veterinary malpractice and liability cases more carefully, paying attention to the possibility of using clinical practice guidelines (CPGs) to prove whether the defendant veterinarian contravened or not the standard of care.
3. In this era of evidence-based veterinary medicine, CPGs are becoming an integral part of many aspects of veterinary practice, even if CPGs do not have the force of law and are situated halfway between ethical rules and legal requirements.
4. Although guidelines have been used for several years, there seems to be a general lack of recognition of the medical and legal ramifications of CPGs for veterinarians.
5. This creates ambiguity and inconsistency in the care that veterinary practitioners provide, compromises the care animals receive, and prevents the courts from assessing veterinarian competence in a systematic and rational way.
6. On the basis of these considerations, this article discusses the legal implications of CPGs in veterinary medicine for dogs and cats and explores how the law may treat CPGs in the future.
7. Redefining the CPGs should be a priority for the veterinary profession.

Surgical Repair of Patent Ductus Arteriosus in a Dog

A case report

Dr. M. S. Chousalkar, Dr. Deepti Deshpande, Dr. Barry Kalsy, Dr. Shivangi Pai & Dr. Akshata Gulvady
Top Dog Pets Clinic, Andheri West, Mumbai.

Patent Ductus Arteriosus (PDA) is a congenital cardiac condition in dogs. The ductus is a connection between the aorta and the pulmonary artery. At birth, the ductus constricts and closes. However, in a PDA the ductus continues to shunt blood from the left side to the right side of the heart. As the disease advances, the over circulation results in left ventricular volume overload resulting in congestive heart failure and pulmonary hypertension. The shunt may reverse from right to left side if pulmonary hypertension is present. The treatment recommendation is surgical ligation of the PDA.

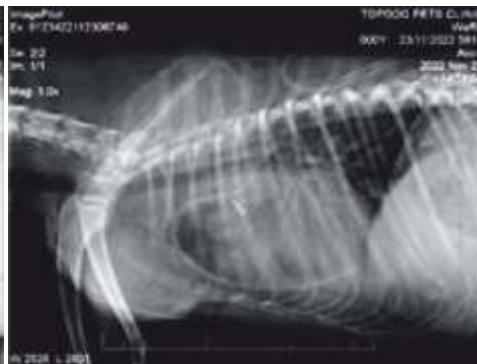
Waffle, a 4-year-old male, intact, Maltese was presented with a grade 5/6 systolic murmur loudest on the left cranial thorax. A chest radiograph showed significant cardiomegaly, left atrial enlargement, and cardiogenic perihilar pulmonary edema. 2D

Echocardiography showed a patent ductus arteriosus connecting the pulmonary artery and aorta with shunting of the blood from the left to the right. The left to right shunting caused volume overload resulting in left atrial and left ventricular volume overload. Significant left atrial enlargement was present and fortunately, pulmonary hypertension was not present.

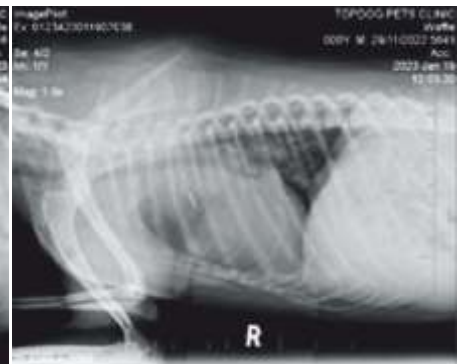
Waffle was medically treated with furosemide and pimobendan. The treatment recommendations for PDA are surgical ligation of the ductus. Surgical ligation is recommended only if the shunting of the blood is from the left to the right. The shunting of blood from the left to the right was confirmed with a bubble study. Agitated saline was injected into the left cephalic vein and the abdominal aorta was visualized. There were no bubbles visible in the



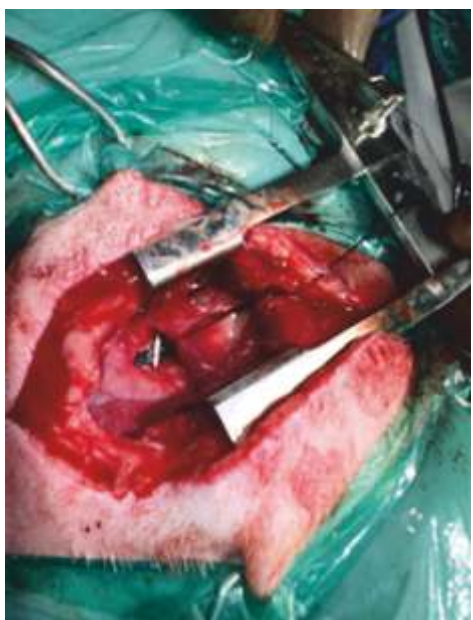
Pre-Surgery Radiograph



Radiograph Immediately Post Surgery



Radiograph 2 months post PDA Repair



Surgical Repair of PDA

abdominal aorta confirming no right-to-left shunting of blood. If the shunting of the blood is from the right to the left, bubbles are visible in the abdominal aorta.

Waffle was scheduled for the surgical ligation of the patent ductus arteriosus. A thoracotomy was performed and the patent ductus connecting the aorta and the pulmonary artery was identified and then ligated. Waffle was put on a ventilator throughout the surgery. Post-surgery a chest drain was maintained for three days. Waffle had a smooth recovery, post-surgery he was closely monitored for 24hrs and subsequently discharged. Thoracic radiographs 4 weeks post-surgery showed reduced cardiac size and no pulmonary edema.

Waffle is back to being active and playful again!

The authors would like to thank Dr Matthias Frank DVM, for his invaluable guidance for the surgical repair of the PDA.

Challenges and Future Path for Betterment of Women Veterinarian in India

Dr. Lakshmi Srinivasan, M.V.Sc (Surgery),
The Animal Care Clinic, Banjara Hills, Hyderabad, Telangana.



Women have always been underrepresented in the field of veterinary medicine, particularly in India. Although there has been a significant increase in the number of women entering the profession in recent years, there are still numerous challenges that women face. Women veterinarians in India often encounter obstacles in their careers. Thus making it difficult for them to advance in their field. The challenges are right from student life onwards.

With the fast-changing demographic of the profession, as more girl students are taking admission their hostel spaces are smaller and are leading to space issues. Girls hostels in several veterinary colleges need immediate upgradation in terms of capacity and facilities.

Basic facilities for women in hostels and veterinary colleges is an issue which needs to be addressed on an urgent basis. Gender discrimination is another major challenge. Despite the fact that gender discrimination is illegal in India, it still exists in many professions, including veterinary medicine. Female veterinarians often struggle to be taken seriously by their male colleagues, and they may be overlooked when opportunities arise. This can be particularly frustrating for women who have worked hard to establish their credentials and skills.

Doing challenging work like attending to large animal dystocias needs physical strength and the facilities need upgradation to facilitate the work environment for women especially at village level.

Another challenge that women vets in India face is a lack of support system and support staff. The in-house support system including staff needs to be strengthened wherever work load is more and staff inadequate.

There are few women in leadership roles within the profession, which means that female veterinarians

have few role models to look up to. Additionally, women who have children or who are caring for elderly family members may find it difficult to balance their work and family responsibilities. Without adequate support from their employers or colleagues, women may struggle to advance in their careers or even to continue working in the field.

Women vets in India may also encounter challenges as many veterinary practices require veterinarians to travel to remote or rural areas, which can be a matter of concern especially at odd hours and where there is limited transport facility.

Finally, women vets in India may struggle to balance their personal and professional lives. Many women are expected to take on the majority of the caregiving responsibilities for their families, which can make it difficult to work long hours or to pursue advanced degrees. This can lead to women feeling burnt out or resentful of their chosen profession.

These challenges have been addressed and the IVA under the leadership of Dr. Umesh Chandra Sharma President VCI, have started addressing these with correspondence with the Government, also various programmes and support groups have been formed among women vets.

In conclusion, women vets in India face numerous challenges as compared to their male counterparts. Women in veterinary medicine in India must navigate a complex set of obstacles to succeed in their careers. It is important for the profession to acknowledge these challenges and work to create a more inclusive and supportive environment for women veterinarians. Only then can women vets in India truly thrive and make significant contributions to their field.



The Vet in Olive green and after...

Maj. Nishit Gokarn

It is every young boys' dream to don the uniform and serve the nation, but my passion was always in Veterinary science. As far back as my memory can take me, all I ever wanted to do was 'be a vet'. As I grew older that feeling kept getting stronger and eventually that was my calling. But somewhere deep inside, that little boy in me always wanted to serve the nation, and no surprises here, the Remount Veterinary Corps was the ideal platform to fulfil both my dreams.

I had no idea regarding the selection procedure for the Armed Forces. I went in for the SSB (Services Selection Board) in Allahabad unprepared, with the intention of meeting new people and enjoying a new experience. As luck would have it, I cleared the SSB in one attempt and was overjoyed. The SSB is common for anyone entering the armed forces. It is a test of your physical, mental, emotional, psychological and social skills.

After 6 months of rigorous training at par with all other Military academies in India, I finally wore the combat uniform. I still remember that day, it gave me so much pride in wearing that uniform. They said, you come in as boys and leave as men, and there's nothing truer. The Army taught me so many life skills, skills unlikely I would have picked up had I remained a civilian.

The discipline and ethos are just the tip of the iceberg, it teaches you about life and living. Every Army unit, every station you're posted in is a melting pot of cultures from across India, all living in this wonderful coexistence bound by their pride, respect and devotion for our nation.

In my short stint of five years, I've had the privilege of being posted at the country's most scenic places far away from civilization. The primary role of a

Veterinary Officer in the Remount Veterinary Corps is management and treatment of Army animals, which include horses, mules and canines, during deployment and cater to their veterinary needs as required. Having served in the Northeast and Kashmir valley, I am extremely happy to have experienced the best of different geographic locations and demographic situations of our country. My experiences have been amazing and without a doubt the best in my life. I made friends who have become like family and formed bonds with colleagues which will run the test of time. The five years went by in no time, and I had a wonderful and fulfilling experience.

One innings of my life had just ended, but another chapter was already being set in motion. My dream was to start my own veterinary hospital. After working at a private practice in Mumbai, we (my wife who is also a Veterinarian, and I) decided to start our own hospital in Vasai, the place where I grew up, the place I call home.

Starting your own practice is not easy, it has its own set of challenges, but at the end of the day when you love your job, it's not work, it's fun. We started our clinic in January 2021, in the middle of the COVID-19 pandemic. As the practice started, we realized there was an increasing issue with animal birth control and stray animal vaccination programs. As a team, we decided to dedicate one day for community animal sterilization every 6 months and one day in the week for free Rabies vaccination. This decision helped us sterilize 53 community dogs and vaccinate more than 430 community dogs and cats within the past 18 months. A big shout out goes to all the well-wishers who helped bring in these animals to get them treated.



This year on 'World Spay Day', 28th February we conducted a marathon neuter program where we neutered 15 community dogs and cats. All the pets were looked after at the clinic premises and then released back to the location after complete recovery.

I believe that one must give back to the nation and the community in which they have grown up as it is both these that shape the person. Serving the nation in whatever way possible and giving back to the society in whatever form possible is best form of karma one can have.

Cheers and Jai Hind!!



Artificial Reconstruction of A Fractured Beak in a Cockatiel

Dr. Nihar Jayakar



Cat Behavior and Handling Workshop held on 5.3.2023

Ms. Laura Borrromeo

PPAM in association with Shirin Merchant Institute of Canine Behavior and Training conducted a workshop on Cat Behavior and Handling on 5.3.2023 at Hotel Karl Residency, Andheri (West), Mumbai.



Renowned Cat Behaviorists
Ms. Laura Borrromeo from Milan Italy was the key speaker.

She covered important topics :

1. What is a cat-friendly clinic? The definition of stress.
2. The Cat from a Behavioral point of view.
3. Taking the cat to the veterinarian.



Diagnosis, Treatment, and Management of Noise Phobia in a pet dog

Dr. Prerna Vaswani, Founder & Head Veterinarian, The PetVet, Mumbai, India

Statement of Problem:

A dog named Simba* was brought into the clinic due to his hiding behaviour during the recent firecrackers and reluctance to go for walks since the past 3 days.

Signalment:

Simba, was a 2 -year-old, intact male, Shih Tzu who weighed 6.4 kg.

History:

Mr. Agarwal* was very worried about his dog Simba who was refusing to go down for his walks since the past 3 days. It was Diwali time and there were firecrackers every evening. Mr. Agarwal explained that Simba had always been very scared of firecrackers. He would hide under the bed, shiver, excessively pant and refuse to come out for several hours. He was refusing to eat his meals or even his favourite treats. Mr. Agarwal said he tried to pull Simba out from under the bed and on occasion has even shouted at Simba by saying 'No' but Simba would just go back under immediately. He cannot be distracted with toys or any games. Last evening, Simba was found to be hiding under the bed even before the firecrackers began. He finally came out three hours after the firecrackers had ended. The owner explained that during the last Diwali season there were barely any firecrackers due to the COVID-19 lockdown and though Simba may have been scared at that time he doesn't remember him displaying this intensity of fear. Simba was not known to be afraid of any other loud noises such as thunderstorms, traffic sounds or even vacuum cleaners and blenders. Simba was also not known to have any other behavioural concerns based on the pre-consultation form filled and talking with the owner. In the exam room he was friendly and curious and after some exploring, he lay down on a mat. On physical examination, he was found to be healthy and all vital parameters were in normal ranges. His gait was normal and a thorough orthopaedic and neurological exam were performed which made him appear pain-free. His baselines blood and routine urine tests were done a month ago and no abnormalities were reported. His vaccines along with ecto and endo parasitic prevention were up to date.

Diagnosis:

Simba was diagnosed to have Noise Sensitivity (also known as Noise Phobia). It was explained to Mr. Agarwal that Simba's response to the firecrackers was that of extreme fear and during that time Simba does not have the ability to think clearly nor can he be distracted.

Treatment Plan:

- 1 For his behavioural problem some Environmental Management techniques were recommended such as:
 - i) All windows and doors must be closed and curtains drawn during all festive seasons such as Diwali, Ganpati, etc.
 - ii) Simba should be allowed to hide under the bed as that is a normal, adaptive response and the owner was advised not to pull him out or shout at him.
 - iii) A bowl of water and his blanket could be kept underneath to make him feel more comfortable along with his favourite chew bone.
 - iv) Keep the AC on in the room to maintain a comfortable temperature and it may aid in blocking some firecracker noise.
 - v) Additionally, play pink noise or any music that may calm him (such as classical music by Bach).
 - vi) Items such as Thundershirt which is a Pressure wrap were recommended which may help Simba feel safe by helping in reducing his fear.
 - vii) Happy hoody/Doggie ear muffs/Mutt Muffs were recommended for him to help him block out loud noises. Cotton balls can be inserted into his ears before wearing any of these items.
 - viii) Walks should be avoided during these days.
- 2) In addition, Behavioural Modification in the form of relaxation exercise was recommended. The owner was taught how to reassure Simba as well as reinforce calm behaviour using gentle soft words.

- 3) The following medication was advised as Diwali was still 3 days away:
- i) Alprax (Alprazolam) 0.025mg: Give 1 tablet once a day in the evening 90 mins before the firecrackers begin. This can be repeated after 4 hours.
 - ii) Vivaldis's Calming & Anxiety Supplement (contains amino acids L-Theanine, L-Tryptophan, Catnip extract, Valerian Root and Ashwagandha): give half a sachet twice a day for 2 weeks. It can be given with or without food.
 - iii) Adaptil diffuser to be inserted near the bed. This can be kept turned on for the entire day for the next week.

It was further explained to the owner that Alprazolam has a relatively quick action and effects would be seen within two hours of administration. Also, the aim of providing medication was not to 'knock' him out but to make him a little bit sedated

and therefore less reactive to the loud firecrackers. Simba will still be scared but it was advised to observe his signs in terms of frequency, duration and intensity.

Monitoring:

A follow-up phone call was set up for two days later to check if an increase in dose of Alprax was needed. During that phone call the owner said that Simba was still hiding under the bed, but he was not shivering or panting and was found to be resting with his head down and eyes open. This felt like a satisfactory improvement in his clinical signs and it was decided not to increase the dosage of medication. During this phone call, it was recommended that they come in for a follow up visit after a few weeks to begin a slow Systemic Desensitization and Counterconditioning program.

*Names have been changed to protect identity of the patients and clients.

Diagnosis, Treatment, and Management of Psychogenic Alopecia in a cat

Dr. Prerna Vaswani, Founder & Head Veterinarian, The PetVet, Mumbai, India

Statement of Problem:

A cat called Luna* was brought in for recent hair loss.

Signalment:

Luna was a 3-year-old spayed, female, DSH cat who weighed 6 kg.

History:

Three months ago, the owner, Mrs. Parekh, noticed that her cat Luna was licking herself more than usual, which had over time led to the formation of bald areas on different parts of her body. On presentation, Luna had a symmetrical form of alopecia which involved hair loss along the sides of the body, hind legs and groin area. On physical examination, Luna's vital parameters were in normal limits and she appeared healthy. On examination of her anal sacs, there was no excessive build-up of secretions. Ecto and endo-parasitic treatment and vaccines were up-to-date. The owner described Luna's appetite and stool output as normal. Luna had recently been on a corticosteroid trial as the previous vet suspected allergic dermatitis to be the cause of her excessive grooming but this had offered no relief. A food trial

also had been tried and was unsuccessful in resolving her condition. After further discussions on Luna's sleeping habits, Mrs. Parekh said that since she was in her second trimester of pregnancy her husband had stopped allowing Luna to sleep with them in the bedroom. If she came in the bedroom he would yell at her, spray water on her and if that did not work, they would physically have to keep taking her out of the bedroom. She recently had started coming into the bedroom and hiding under the bed, refusing to come out. Baseline blood tests, endocrinological tests and routine urine tests were within normal ranges. A viral profile was performed along with skin cytology and skin scraping tests, revealing no abnormalities or presence of infectious or parasitic agents.

Diagnosis:

Based on clinical presentation, physical examination and recent changes at home wherein she was permitted from being in the bedroom, Luna was diagnosed with Psychogenic Alopecia. The following management protocols were recommended to reduce her stress and treat the cause of the problem.

Treatment Plan:

i) Behaviour Modification:

It was explained to the owner that Luna's hair loss was a result of overgrooming. Grooming is a normal behaviour seen in cats but in Luna's case it had become a compulsive behaviour due to the stress. Unfortunately, the owners were resorting to means of punishment to teach Luna where to sleep. It was suggested that Luna be trained to leave the room on cue by methods of positive reinforcement using treats. Yelling, spraying of water and other forms of punishment were to be strictly avoided.

ii) Environmental Management

Alongside, a focus on meeting her environmental needs by providing paper bags and boxes, toys, cat trees and other places to perch were advised. Additionally, more play time and the regular social interactions with Mr. Parekh and other members of the household was recommended.

iii) Medication:

Luna appeared to be in severe distress which led to excessive grooming and hence she was started on Clomipramine at 0.3 mg/kg once every 24 hours PO to aid in her emotional recovery. In addition, a supplement containing omega fatty acids was prescribed.

Monitoring:

Two weeks later, a phone call follow-up revealed decreased licking and no new patches. The next appointment was scheduled for after 1 month to review and it was thought that Luna may benefit from being on the medication even after the baby would be born to help deal with the changes in her environment.

*Names have been changed to protect identity of the patients and clients.

Understanding African Swine Fever. Prevention is the Key

Dr. S. V. Vishwasrao

In the first week of January 2023, the Tamil Nadu Forest department confirmed the outbreak of African swine fever among wild boars in the Madumalai tiger reserve in the Nilgiris. Earlier the disease was reported from Kerala and Bandipur tiger reserves in Karnataka in 2022.

African swine fever (ASF) is a highly contagious viral disease of domestic and wild pigs, whose mortality rate can reach 100%. It is not a danger to human health, but it has devastating effects on pig populations and the

farming economy. There is currently no effective vaccine against ASF.

The virus is highly resistant to the environment, meaning that it can survive on clothes, boots, wheels, and other materials. It can also survive in various pork products, such as ham, sausages, or bacon. Therefore, human behaviours can play an important role in spreading this pig disease across borders if adequate measures are not taken.

Prevention: In the absence of an effective vaccine, prevention in ASF-free countries depends on the implementation of appropriate import policies and biosecurity measures, ensuring that neither infected live pigs nor pork products are introduced into ASF-free areas.

This includes ensuring proper treatment and disposal of waste food from aircraft, ships, or vehicles coming from affected countries and policing illegal imports of live pigs and pork products from affected countries.

At the farm level, the following key biosecurity principles should be implemented to keep animals healthy.



As observed in Europe and some regions of Asia, where wild boar play a significant role in the transmission of ASF, managing this wild population density and their interaction with low-biosecurity pig production systems is key. Good knowledge and management of the wild boar population and good coordination among the Veterinary Services, wildlife, and forestry authorities are required to successfully prevent and control ASF.

A Review on Therapeutic Hypoallergenic Diets

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1. Introduction

The skin is the largest organ, which is also metabolically active, with a high physiological requirement for protein and other nutrients. Therefore, it is not surprising, that subtle changes in its nutrient supply can have a marked effect on skin and coat's condition. Dietary corrections for animals that are very sensitive to food allergies will play a role majorly in three arenas, i.e., nutrient deficiency or imbalance, nutritional supplementation for therapeutic effect, and dietary sensitivity.

Food Allergy (FA) is recognized as a potential cause of various dermatological and gastrointestinal (GI) signs in dogs and cats. The exact incidence of FA is unknown, however, the term "allergy" is often used indiscriminately. The aim of this review is to give an idea about the classification of adverse food reactions, knowledge of different food allergens, clinical signs, diagnosis and their treatment.

FA – Food allergy, FI – Food intolerance

2. Classification

Adverse food reactions (food sensitivity) are divided into two categories: immunological and non-immunological reactions (Table 1). Food allergy (food hypersensitivity) implies all immunological reactions following food intake. Non-immune mediated reactions are indicated as food intolerance (FI). Food idiosyncrasy, food toxicity and food poisoning, anaphylactic food reaction, pharmacological and metabolic food reactions are all forms of FI. Overlap between the different types is possible because a clear distinction is difficult.

Food idiosyncrasy describes a quantitatively abnormal response to a food substance or additive which resembles allergy but does not involve immune mechanisms. This is because previous sensitization is not required. Food intoxication and food poisoning are biological effects caused by an infection or the presence of toxins in foods. These toxins can be inherent to the food or are produced by parasites or micro-organisms. Anaphylactoid reactions

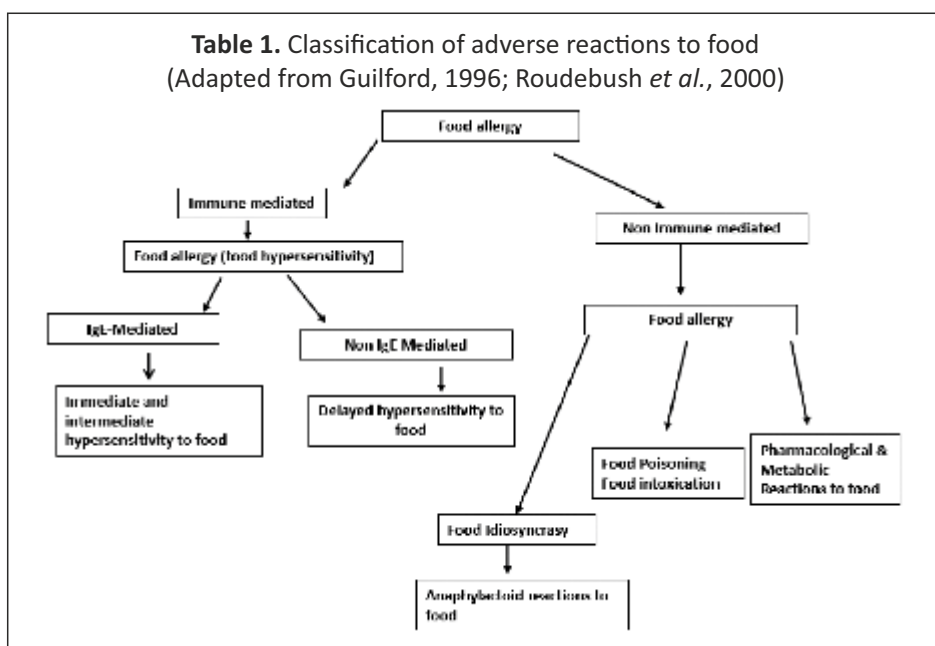
to food mimic real anaphylaxis, but are not mediated by an immunologic release of chemical mediators. These reactions are also part of FI, food idiosyncrasy, food toxicity and food poisoning, or pharmacological reaction to food (Anderson *et al.*, 1986). Anaphylactoid reactions can occur after ingestion of spoiled tuna which contains large amounts of histamine, resulting from decarboxylation of histidine by bacteria such as *Proteus* and *Klebsiella* (Casale *et al.*, 1984).

A metabolic food reaction is related to the reaction of the metabolism of the host after food intake. Reasons for susceptibility to a particular food include disease status, malnutrition, and inborn errors of metabolism. Lactose intolerance is a metabolic adverse reaction that can occur in dogs and cats (Halliwell *et al.*, 1992).

3. Food allergens

Although all food proteins are antigenic (foreign to the body), only a small component of the total protein content of a food is allergenic: the capacity of a protein to induce an allergic reaction is influenced by the immunogenicity and the permeability of the gut for the protein. Allergen immunogenicity depends on stimulation of IgE production and histamine release of mast cells after bridging of the allergen between two IgE molecules on the surface of the mast cell membrane. This requirement places a minimum size limit on molecules that can stimulate IgE production (Taylor *et al.*, 1987).

Table 1. Classification of adverse reactions to food
(Adapted from Guilford, 1996; Roudebush *et al.*, 2000)



Factors that determine which proteins are the most important allergens are incompletely understood. Immunogenicity and stability of the protein play an important role. Food allergens maintain their immunogenicity in spite of different treatments: a lot of allergens are partially resistant to the influence of heat and acid and can resist the digestion process. However, it seems that allergenicity can be influenced by food processing: protein denaturation can destroy old epitopes (antigenic determinants) or expose new ones, with a decrease or increase of allergenicity respectively Guilford *et al.*, 1996). The importance of this phenomenon in FA is under debate, but it appears that the allergenicity of most foods is either unchanged or reduced by cooking or partial digestion (Bahna *et al.*, 1991).

4. Common food allergens in dogs

There are a lot of potential food allergens that exist, and because of the multiple ingredient content in commercial pet food, it is difficult to detect the specific causative food allergens. Several publications have been analyzed in which the allergen has been identified by elimination and single ingredient challenge trials yields in dogs. The allergens are presented in Table 2.

5. Clinical signs

FA is the third most common occurring skin allergy after flea allergy and atopy. There is no clarity about the incidence of GI symptoms of FA. GI symptoms rarely occur, they are present in 10–15% of the cases. 75% of the cats with FA had exclusively GI problems. In dogs, no data was found concerning GI symptoms as exclusive presentation of FA. (Denis and Paradis, 1994)

5.1 Susceptible breeds

A higher risk is reported for certain breeds: Boxers, Cocker and Springer Spaniels, Collies, Dalmatians, German Shepherds, Lhasa Apsos, Miniature Schnauzers, Retrievers, Shar-Peis, Soft-Coated Wheaten Terriers, Dachshunds and West Highland

White Terriers (Rosser *et al.*, 1993). FA can occur at any age: Most of the authors report a range of 4 months to 14 years age (Roudebush *et al.*, 2000).

5.2 Symptoms

FA is usually non-seasonal and often occurs suddenly after months or years of consuming the diet containing the inciting foodstuff. The occurrence of symptoms is usually consistent with subsequent challenges: each intake of the allergen causes symptoms.

5.2.1 Dermatological signs

The most common symptom of FA in dogs is pruritus. In general, the pruritus is present constantly, but the intensity can be variable. Pruritus can be either generalized or limited to face, ears, paws, axillae, inguinal or perineal region (Walton *et al.*, 1967). This presentation resembles atopy. FA can mimic other common skin disorders, including pyoderma, pruritic exsudative dermatoses or “hot spots” (injuries which are caused by self-trauma in response to pruritus or pain), folliculitis and ectoparasites (Roudebush *et al.* 2000).

A variety of primary and secondary skin lesions occur and include papules, erythema, excoriations, epidermal collarettes, hyperpigmentation, pododermatitis, seborrhea, and otitis externa. The presence of otitis externa is an important indication for FA. In some animals it may be the only presentation for FA Rosser *et al.*, 1993). In 20–30% of the cases of FA, simultaneous allergic skin diseases are present.⁸⁰ The combination of atopy, FA and flea allergic dermatitis is well known.^{19,68,74} Relying on the history and clinical symptoms, it is difficult to differentiate between atopy and FA (Denis and paradis, 1994).

5.2.2 GI signs

Although there is no sex, breed, or age predilection for the occurrence of GI symptoms of FA, the German Shephard, Irish Setter, and Shar-Pei would be more

Table 2. Common food allergens in the dog

	Beef	Dairy	Wheat	Lamb & Mutton	Soya	Fish	Egg	Chicken	Canned foods ¹	Dry foods ¹	Diverse ²
Walton (1967)	13	22	11	6		2	3		17		5
Jeffers <i>et al.</i> (1991)	12	5	4		3		2	3		2	
Harvey (1993)	6	11	8	1			4	1			1
Dennis and Paradis (1994)	8	4	1	1			2	2			2
Paterson (1995)	13	2		5	1		4	2			6
Jeffers <i>et al.</i> (1996)	15	7	6		8		5	7			3
Chesney (2002)	5	5						4		8	3
	72	55	30	13	12	2	20	19	19	12	20
%	36	28	15	6,6	6	1	10	9,6	8,6	6	10

¹Canned foods and dry foods: commercial foods in which the exact causative food allergen was not identified.

²Diverse: corn, rice, “biscuit,” chocolate, gluten.

frequently affected (Roudebush *et al.*, 2000). Symptoms of FA are nonspecific: vomiting, diarrhoea (varying from profuse and watery to mucoid or hemorrhagic), intermittent abdominal pain or an increased faecal frequency can be seen (Guilford *et al.*, 2001). FA is not unlikely in dogs with pruritus and increased defecation behaviour (more than 3 times a day).

6. Diagnosis

A food trial is the most important diagnostic tool in dogs and cats with suspected adverse reactions to food. In vitro testing, biopsies, intradermal skin testing and gastroscopic food sensitivity testing are not reliable for diagnosing FA (Kunkle and Horner, 1992).

6.1 Food Trial

The diagnosis of an adverse food reaction is confirmed by a food trial. The first step is the introduction of an elimination diet, followed by challenging the patient's former food. When symptoms recur on the former diet

and disappear again on the elimination diet, diagnosis of FA is made. With a provocation test, the causative food component(s) must be identified. Table 3 gives an overview for a step-to-step approach in diagnosing and treating FA in dogs and cats.

6.1.2 Elimination diet

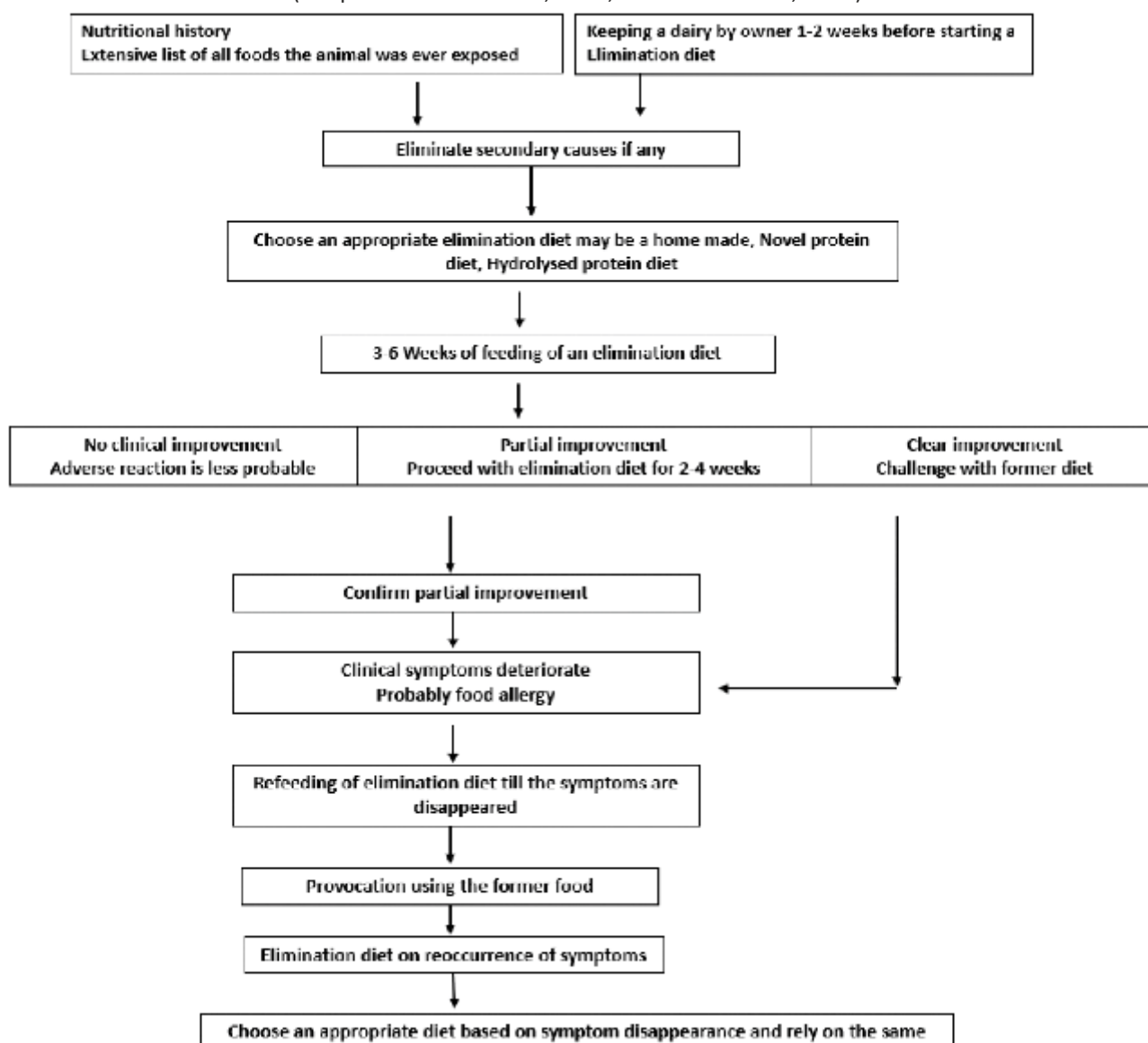
Removal of the previous diet and introduction of a novel protein "hypoallergenic" diet is advised by many authors (Ackerman *et al.*, 1988).

The ideal elimination diet should reply to some criteria: contain a limited number of new, highly digestible proteins or exist on hydrolyzed protein, have a lower protein content than the usual foods, avoidance of additives and vasoactive amines, and be nutritionally adequate for the animal's life-stage and condition.

6.1.3 Duration

The duration of an elimination diet is subject of discussion for patients with dermatologic symptoms

Table 3. Algorithm for diagnostic steps and treatment of food allergy in the dog and cat
(Adapted from de Jaham, 2000; Roudebush *et al.*, 2000)



and owing to the contradictory data in literature, it is difficult to give clear recommendations. Many older publications and text books recommend a period of 3 weeks (White and Sequoia, 1989). In patients with GI symptoms, a shorter elimination period of 2–4 weeks is sufficient.

6.1.4 Interpretation of the Response on the Diet Dermatologic Signs.

In patients with dermatologic signs, pruritus is the most important symptom that is evaluated during the elimination diet. Evaluation of pruritus is rather subjective and criteria for reduction of pruritus differ according to the studies consulted, varying from 50% to 80–100% (White *et al.*, 1986). Only Paterson (1995) made an objective evaluation of pruritus by the use of a pruritus score (Table 4): at the end of the elimination test, almost all dogs showed a reduction to a score of 3 or less.

Table 4. Pruritus score (Paterson, 1995)

Score	Severity of pruritis
1	Dog not pruritic at all, or scratches occasionally like a normal dog
2	Dog scratches or bites occasionally, and its generally comfortable
3	Dog scratches and bites frequently, but not excessively
4	Dog scratches and bites very frequently, often seems uncomfortable
5	Dog scratches and bites almost constantly, in a lot of discomfort

7. Treatment - Management

The principle for treating FA is very simple: avoidance of the offending food allergen- hence it is important to do provocation testing with separate food components. Concurrent allergies can influence the threshold for clinical symptoms in some animals. Prevention of fleas and other causes of pruritus must be carried out (Kunkle *et al.*, 1995).

Key nutritional factors

Factors	Dietary recommendations
Protein	16-22% Protein hydrolysate or protein sources to which the dog has not been exposed previously
Total omega-3 fatty acids	0.35 to 1.8% DM
Phosphorous	0.4–0.8% DM
Sodium	0.2–0.4% DM
Vasoactive amines	Avoid tuna, mackerel and bonito etc...

All these above-mentioned nutritional corrections are mandated in Drools Vet pro Hypoallergenic dry food in order to therapeutically solve Food allergies in dogs.

8. Conclusion

The exact prevalence of FA in dogs and cats remains unknown, but it is probably underestimated because it is difficult to make a reliable diagnosis of FA. The lack of a reliable diagnostic test is a big concern and would be a great step forward in determining the exact prevalence of FA in suspected patients. Till date, an extensive food trial is the only way to diagnose FA. Unfortunately, the correct performance of the different phases of this test (elimination diet, challenge and provocation testing) is a very time-consuming activity. For a successful outcome of the food trial, the choice of an appropriate elimination diet is of great importance.

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Nutritional Support of Dogs and Cats After Surgery or Illness

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Nutritional Support of Dogs and Cats After Surgery or Illness

1. Introduction

Animals need nutritional care as they recuperate from sickness or surgery. However, individuals with more severe diseases or conditions will be hospitalized throughout recuperation. Many animals may recover from small illnesses or routine surgical procedures at home. A regimen for hospitalized patients' nutritional support is advised [1]. Early nutritional supplementation has been shown to improve outcomes and reduce hospital stays in both humans and canines [4].

In order to ensure that the digestive and immunological systems of an animal recovering from illness or surgery perform at their best, nutrients must be given to the animal. Since intraluminal medications stimulate the gastrointestinal tract and limit bacterial translocation [5], enteral feeding is preferred to parenteral feeding.

2. Hypometabolism versus Hypermetabolism

A healthy animal with an insufficient food supply will eventually adjust its metabolism to that circumstance. The body will largely draw on fat reserves once glycogen levels are depleted (usually 24 to 48 hours after the last meal). To meet energy needs, proteins will also be broken down; this process may start in 2 hours, but it becomes more pronounced after 2 weeks of absolute fasting [5]. In these circumstances, the rate of thyroxine to triiodothyronine conversion decreases, which results in a slower metabolic rate (insulin-dependent).

In human medicine, the ideal recovery time following a disease or surgery is 14 days on average. Two stages of metabolic changes can be distinguished during this 14-day recuperation period. The first 24 to 48 hours of the healing period are known as phase 1 of recovery. Fluid therapy and the administration of nutrients to the digestive tract are crucial during this time [10] [11]. By day 3, the second phase of recuperation starts. After three days of starvation, patients frequently highlight the need for nutritional support because this phase requires greater calorie delivery [12]. Long-chain polyunsaturated omega-3 fatty acids, taurine, arginine, and glutamine have all been mentioned, but not confirmed, to provide timely nutritional support.

Phase 2 is characterized by hypermetabolism [10] [11] [06]. Protein will be catabolized (used for energy and gluconeogenesis), used for the production of acute-

phase proteins and immunoglobulins, and required for wound healing as a result of the impacts of inflammatory cytokines in the catabolic state. In light of this hypermetabolic

Early nutritional supplementation is crucial to supply energy and protein to aid with recovery. Also, it is crucial to consider the supplementation of nutrients for recovery as many diets lack protein and energy compared to the amounts needed for maximum recovery [10] [11]. A minimum of three days of nutritional assistance (l-glutamine, omega-6 and omega-3 fatty acids, taurine, arginine, etc.) are typically required to transition from a catabolic to an anabolic state. Subsequent adaptation to full recovery may require several weeks. During phase 2, there continues to be an increased need for protein (> 12 g/MJ of ME [> 5 g/100 kcal of ME] in dogs and > 18 g/MJ of ME [> 7.5 g/100 kcal of ME] in cats) and fat (> 12 g/MJ of ME [> 5 g/100 kcal of ME], unless fat restriction is desired (4.8 to 8.4 g/MJ of ME [2.0 to 3.5 g/100 kcal of ME] [7].

3. Anorexia versus Hyporexia

Animals in poor health frequently consume insufficient amounts of nutrients as a result of their primary illness or being admitted to a clinic (e.g. change in diet or feeding routine). A patient must have adequate pain alleviation and hemodynamic stability before nutritional supplementation is started. Clinicians should also distinguish between both hyporexia and anorexia. Instead of a complete loss of appetite, hyporexia refers to a diminished appetite [11]. Forced feeding won't increase spontaneous food intake in anorexic patients. However anorectic individuals should get enteral or parenteral nutrition [5] [7]. It should be noted that improving spontaneous food intake is also influenced by addressing the underlying condition.

Table 1. Key nutritional factors for recovery diets in Cats and Dogs (As is basis)

Factors	For Weight loss
Energy density	≤ 4.1 - 4.2 kcal (ME)/g
Fibre	2.5-3.0%
Fat	09-12%
Protein	8-10%
Lysine	$\geq 1.7\%$
Carbohydrates	$\leq 30\%$
Magnesium	0.09-0.20%
Phosphorus	0.5-0.9%
Sodium	0.3-0.6%
Calcium	0.7-1.1%

4. Bacterial Translocation

Bacterial translocation is a phenomenon in which intestinal bacteria move into internal organs and mesenteric lymph nodes that are not normally home to them from the intestines via the intestinal wall. Surgery may result in unanticipated inflammation, severe infections, and subsequently impaired organ function [1]–[4]. Bacterial translocation, which results in sepsis that is connected with the gastrointestinal tract, is one possible origin of this condition. When the gastrointestinal system is malnourished (i.e., deprived of intraluminal nutrients), cell turnover and mucosal mucus production are reduced. This reduces the GI tract's surface area and barrier function, which impairs food absorption. Protein deficiency frequently results in reduced immunoglobulin production, which impairs GI tract barrier function (gastrointestinal tract–associated lymphoid tissue). In order to benefit all anorectic animals, the gastrointestinal system should be supported with intraluminal nutrients [6].

Moreover, the lack of intraluminal nutrients lowers the blood supply to the digestive system. Due to the lack of intraluminal nutrients provided by parenteral nourishment, an animal may be more susceptible to bacterial translocation. When laboratory rats were given enteral nourishment as opposed to parenteral nutrition, the postsurgical mortality rate was lower in the rats with experimentally generated peritonitis [7]. When enteral (peroral) feeding is utilized in surgery, there are fewer infections (20% fewer) than when parenteral (IV) feeding is used, according to a number of studies [4] [7]–[9] in humans. Moreover, enteral nutrition shortly after surgery helps humans recover their gastrointestinal tract motility and improve their overall health [8].

5. Stimulation of Spontaneous Food Intake

Opiates, antimicrobials, diuretics, immuno-suppressants, and chemotherapeutics are a few examples of drugs that can have an inhibitory influence on food intake [4]. Instead of immediately feeding an animal in the hospital the diet that will later be recommended, it is frequently advisable to first give it the food that it regularly receives at home. Certainly, neophobic animals (those who are afraid of unfamiliar foods) fall into this category. In our experience, hospital foods are frequently disliked, which makes switching to therapeutic diets more challenging. Also, the writers advise against serving multiple dishes at once.

Spontaneous food intake is a sign of recovery, so it's critical to provide food and encourage it every day to track the resurgence of hunger. An animal's hospitalization is frequently a stressful experience, so

it's crucial to try to replicate as much of its home environment as you can to promote spontaneous food intake. Ideal settings for promoting feed intake include a quiet and comfortable environment, suitable and tender care, and a light cycle (number of hours of light vs. number of hours of darkness) consistent with the season.

6. Nutritional Support during Recovery

As was already noted, providing nutrients like arginine, glutamine, taurine, long-chain polyunsaturated fatty acids, and prebiotics at the right time will help cats and dogs recover more quickly from illness and surgery. Therefore, it is crucial to give these nutrients to animals in hospitals.

Amino acids

Arginine promotes nitrogen retention, protein turnover, conversion of ammonia to urea, and wound healing. The mean dose in critical care diets for dogs and cats is 1.20 to 1.77 g/MJ of ME (0.50 to 0.74 g/100 kcal of ME).

One of the most crucial amino acids is glutamine. It promotes intestinal cell health and strengthens immunity [5]. However, stress, especially stress brought on by surgery, impairs the entire synthesis of glutamine in stressed animals [5]. By encouraging the creation of particular acute-phase proteins, glutamine promotes intestinal function, the immune system, and expedites postoperative recovery.

The immune system's healthy growth and operation are supported by taurine [6]. In addition to playing a critical part in bile conjugation, retinal function, and the myocardium's energy metabolism, taurine aids in the defense of cells against oxidative stress.

There may be health advantages to using EPA and DHA. Since not all omega-3 long-chain polyunsaturated fatty acids are as potent as EPA and DHA, it's critical to understand how much of each type of omega-3 fatty acid is present in a given product. Moreover, those items must have sufficient antioxidant levels (3).

Due to the fact that several of these formulations also contain significant levels of vitamins A and D, using cod liver oil is typically not advised. Also, the products shouldn't include any heavy metals like mercury [10]. Through modifying eicosanoid synthesis, cytokine expression, and lowering the production of tumor necrosis factor- and interleukin-1, which are key players in anorexia and cachexia, eicosapentaenoic acid and DHA have anti-inflammatory effects.

They also contribute to a decrease in the production of leukotriene B4 and prostaglandin E2, which play

important roles in inflammation and pain. Mitigating pain and inflammation will improve recovery time and accelerate the healing process. Dosage recommendations for some clinical conditions range from 0.25 to 0.66 g of EPA and DHA/MJ of ME (0.10 to 0.28 g/100 kcal of ME) for dogs and 0.25 to 1.81 g of EPA and DHA/MJ of ME (0.10 to 0.76 g/100 kcal of ME) for cats [80]. Typical critical care diets contain 0.42 to 1.41 g of EPA and DHA/MJ of ME (0.18 to 0.59 g/100 kcal of ME) (11).

Probiotics

Prebiotics like fructooligosaccharides and inulin are thought to improve the condition of the gastrointestinal system. Prebiotics are non-digestible food components that specifically promote the activity and growth of one or more types of bacteria in the colon, including *Bifidobacterium* spp. and *Lactobacillus* spp., which benefits the animal's health. Prebiotics that have been fermented lead to a drop in pH in the intestinal contents, which encourages the growth of probiotic bacteria and has antibacterial effects on pathogens (8). Enhancements in bowel function, increases in mineral absorption, modifications in lipid metabolism, decrease in ammonia absorption, and drops in insulin levels are the main impacts.

Certain types of organisms may overgrow depending on the antibiotic used, while other types of organisms may be repressed or eradicated. Diarrhea is one effect of this imbalance. A healthy intestinal flora establishes a barrier that stops unwanted bacteria from entering, facilitates food passage through the intestines, boosts immune function, stops the creation of dangerous substances, and ferments non-digestible fibre to produce beneficial short-chain fatty acids (e.g. butyric acid). Colonocytes employ these short-chain fatty acids as a substrate to preserve the gastrointestinal tract's structural integrity, promote the absorption of water and electrolytes, and reduce the likelihood of diarrhea.

All these above-mentioned nutritional corrections are mandated in Drools VET PRO Recovery in order to promote healing in cats and dogs after surgery and other conditions.

7. Conclusion

Many processes disrupt the nutritional condition after surgery or during serious sickness, delaying recovery. There is evidence that early nutritional supplementation after recovery from surgery or shortly after the onset of disease reduces mortality and reduces the length of hospitalization for dogs and cats. The patient's condition will determine the preferred feeding method. Patients should get nutritional

support, at the very least consistent with their resting energy needs, assuming there are no clinical contraindications. While the use of food supplements containing nutrients from various categories may be helpful during healing and recuperation from sickness or surgery, additional research is required to vouch for their beneficial benefits.

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Proud Moment for PPAM Members to be invited as Speakers



Dr. Sangeeta Vengsarkar Shah, Guwahati 18.2.2023



Dr. Kasturi Bhadsavle, lead paper ISVS, Nagpur



Dr. C. C. Wakankar, Guwahati 18.2.2023



Guwahati, February 2023



Dr. S. V. Vishwasrao, CE Mangalore 5.3.2023 and lead paper ISVS C Nagpur 11.01.2023



CE of Costal Pet Practitioner Association of Karnataka at Mangalore 05.3.2023

In loving memory of Dr. Silloo Bhagwager

(04.01.1941 -23.01.2023) Life Member PPAM

Dr. Silloo Bhagwager had expressed her thoughts in the PPAM Bulletin 2015 and her views about our PPAM Bulletin.

Hi Dr.

More than a week ago I received the bulletin. It has many more pages and looks and reads Great.

Thank you for your time and effort. It is interesting, Informative, and well-designed.

Regards

Dr. Silloo



Reproduced is the Article Written by Dr. Silloo in PPAM Bulletin 2015.

As I stepped through the old gates of the Bombay Veterinary College for the very first time, I felt like, 'THIS, is where I belong.' However, this grand emotion was not so much for a career as a Veterinarian, as for the lovely old stone building with its huge brass bell and lovely driveway coming from the hospital gates. I could imagine past Principals... those Worthies, whose photos lined the Principal's office walls... come in their horse-drawn carriages to alight at the entrance of the Main building.

Getting admission, unlike today's competitive rush, was a cakewalk since not many desired to become vets and it puzzled many of my friends as to why I, with a B.Sc. in Microbiology from St. Xavier's College, should opt for Veterinary Science. People would say this profession was not for girls, that it would be hard especially so being the only girl in class. But in spite of all the negative vibes, I was happy as a lark. Reality struck me only when my shy classmates, amazed at finding a girl amongst them would studiously avoid me. Many times I had to chase them to find out where the next class was. My life would have been lonely had it not been for the 'only' other girl in my Second Year, Amrita Patel (now Retd. Dir. NDBI, Anand), and we became good friends.

In my class, we were just a handful... an assorted lot. Me, the slick city dweller, a "dandy" guy from Nairobi, and others from small towns. But, by the end of four years, we were like family.

The First Year was like a 'breaking the ice' year. We were all shoved into a train and taken for Extra Mural Training. Jammed into one compartment, there was no choice other than to get to be friends. Although I was treated with special consideration, I did all that the boys did: plowed the fields, rode the horse, and splashed in the river in Nasik.

Back in college, my favorite class was AH taken in the casting shed amphitheater. We would cast the cattle and also try our hands at lassoing like cowboys... me, cowgirl. Yes, those were the days... the mid-sixties.. they were conservative. This prudishness presented me with a problem. I could not possibly go wearing my lovely long full skirts for Surgery

practicals and Horse Riding classes! However, I had a pioneer in my friend Amrita who WENT BOLDLY before me. She wore jeans and so did I. But then one day I did manage to cause a minor scandal by wearing short shorts, ever so briefly, at an intercollege cycling event.

As we all went to 2nd, the 3rd, and 4th year, we had brilliant teachers like Dr. Joshi of Physio, Dr. Mehendale of Anatomy, Dr. Rao of Parasitology, and his junior lecturer who would draw brilliant colored helminth life cycles on the board, only to be rubbed off at end of class. Then there was Dr. Sardeshpande who taught us marvelous Pathology and, of course, the unforgettable Head of Surgery, Dr. Hattapangady, and junior lecturer, Dr. Wadia. Dr. Wadia was easygoing and friendly. We would take advantage of his good nature and sometimes skip his classes. He would then surely find us at the rickety tea shop outside the college gate and herd us back into class.

I have heard it was fun at Holi time when the first-year students would be caught and given a good dunking in colored water in the huge old wooden tub in the garden. Alas, that old wooden tub is no more... like a few sad memories. One of them is Sweetie. Sweetie was a little puppy who had strayed into the college, hungry and bedraggled looking for food and friendship. Daily she would meet and follow me wherever I went, except into the labs. She would sit quietly under the bench near my feet, and no one objected. On Monday, Sweetie did not come to greet me. A student had kicked her down the old hostel staircase and she had died.

Then there were inter-class sports. I would love watching handball matches, and my class boys were good. But hockey was another ball game.... I once asked to play on the team, little realizing how totally out of sync I was. It was all clumsy, but fun... and we lost.

Maybe I was naive then, but ragging was something one never heard of. Also funnily, I never saw or heard of group or class distinctions being made. We were just an Average Class. No brilliant personalities sprinkled amongst us. Yet to me, we were a Great Class... the Class of 1966.

Highlights of the PPAM Annual Day Event



The 26th
Annual Day Event
was held on the 22 January 2023 at
Peninsula Grand Hotel, Saki Naka Junction, Andheri East, Mumbai.

Highlights of the PPAM Annual Day Event



One hundred and forty PPAM members along with their families participated in the event. The event consisted of a family get-together, Games, DJ followed by dinner.

†PETRACEUTICALSTM2.0



**THE FOUNDATION FOR YOUR DOG'S HEALTH
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Nutritional Supplements and their Benefits to Dogs

Ms. Rajas Kulkarni, BSc (Zoology) Mumbai & Veterinary Nursing (UK)
Director - Venttura BIOceuticals Pvt. Ltd.

The word 'supplement' is derived from the Latin word 'supplere', which means to full up or complete. In the realm of nutrition, supplements are used to augment or meet nutrient shortfalls. Supplements are intended to be used as a source of nutrients to fill identified nutrient gaps or, more frequently, to establish a regular intake of a particular combination of nutrients. Also, dietary supplements are often taken for certain functional or health advantages. Even if a dog consumes a food that is balanced and nutritionally complete, adding dog nutrition supplements can help dogs that have specific health issues and promote general health and wellness. Many a times 'home-cooked' food is either not balanced or is lacking in the necessary nutrients. The same is true for commercial dog food where certain vitamins, minerals, and fatty acids can be leached during the heating or cooking process.

Nutritional supplements for dogs can provide a variety of benefits for their overall health and well-being. Here are some potential benefits of nutritional supplements for dogs:

- 1. Improved joint health:** Many joint supplements contain ingredients such as **glucosamine** and **chondroitin**, which can help reduce inflammation in the joints, reducing pain and discomfort and slow the progression of joint disease, such as osteoarthritis. Ingredients like **MSM** and **collagen**, increase joint flexibility, **hyaluronic acid** and **omega 3 fatty acids** improve joint lubrication, reducing friction and improving mobility. Herbal extracts like **Boswellia serrata**, **aloe vera**, **rosehip**, **bromelain**, **turmeric**, **nettle** & **Withania somnifera** improve joint health and reduce inflammation, particularly benefitting older dogs, large and giant breeds, breeds with predisposition to joint problems, working dogs or dogs with joint issues. By reducing pain and inflammation and improving joint health and flexibility, joint supplements can help improve overall mobility in dogs.
- 2. Enhanced immune function:** Immunity supplements can help strengthen a dog's immune system. Ingredients such as **colostrum** contain high levels of beneficial antibodies, lactoferrin and other nutrients that support the immune system fight against infections and diseases, promote digestive and joint health, alleviate allergies and promote healing. Supplements with antioxidants like **quercetin**, **turmeric extract** and **lutein**, help neutralise free radicals, and protect against illness and inflammation which can be beneficial for dogs with conditions like arthritis, allergies, and inflammatory bowel disease (IBD). Some immunity supplements contain ingredients like **L-theanine** that can help reduce stress and anxiety and support calmness.
- 3. Healthier skin and coat:** Supplements with **lecithin**, **brewer's yeast**, **omega fatty acids (2, 3, 6, 7 & 9)** and **collagen** and **horsetail silica** can help alleviate dryness, itching, and flakiness, reduce shedding by supporting the health of hair follicles, repair skin and promote a healthy, shiny coat. Supplements with antioxidant ingredient like **quercetin** and **carotenoids** as well as other nutrients like **MSM**, zinc and **biotin** can help improve skin and coat health, reducing issues such as dryness, itching, redness, allergies and shedding.
- 4. Increased energy and vitality:** Some supplements, such as B vitamins and iron along with antioxidants like **ginseng** and **turmeric extract**, can help boost energy levels and overall vitality, making them particularly useful for active dogs, geriatric dogs or those recovering from illness, infections or injury.
- 5. Improved muscle growth and maintenance:** Amino acids are essential for muscle growth and maintenance. Supplementing with amino acids, particularly branched-chain amino acids (BCAAs) i.e., **leucine**, **isoleucine** and **valine**, support muscle growth and repair, particularly for active dogs, geriatric dogs to prevent muscle wastage, growing dogs for optimal growth and for dogs recovering from illness, diseases and injury. Amino acids such as **glutamine** and **proline** can help support healthy digestion, reducing issues such as diarrhoea and other digestive problems. Certain amino acids, such as **tryptophan** and **tyrosine**, can help support cognitive function and mood, reducing issues such as anxiety and depression.

Quality supplements offer several benefits, bridging deficiencies, alleviating health concerns and promoting overall health and wellness in dogs. **Petraceuticals 2.0** supplements use unique, human grade ingredients in their extensive range of first-of-kind formulations that address most of the health challenges commonly seen in dogs in veterinary practices in India.



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Highlights of PPAM and Panav Bio-Tech Symposium held on 5.2.2023





Proud Moment for Veterinary Profession. Dr. Meghana Pemmaiah

In an act of sheer daredevilry, Dr. Meghana Pemmaiah a women wildlife veterinarian went down a well in a cage and rescued a leopard.

This incident happened on 13.02.2023 in Karnataka Dakshina Kannada district.

A one-year-old leopard had fallen into a well in Niddodi village, 35 km from Mangaluru city, in Karnataka. The forest department had difficulty rescuing the animal as it was hiding in a small cavity inside the well. Thereafter, veterinarian couple Dr. Meghana Pemmaiah and Dr. Yashaswi Naravi, and other experts along with forest officials decided to go down the well to sedate the Leopard, Dr. Meghana got into a cage armed with a gun and dart to sedate the leopard. The rescue team had to take into account the medical condition of the leopard. Using several ropes, the cage was lowered as Dr. Meghana waited patiently for a sight of the leopard. Dr. Meghana managed to sedate the animal. Once sedated, the local people helped her get the leopard into the cage.



Great event organized at short notice with 625 participants. Office bearers of FSAPAI, SAPA Assam, and each and every state Association put in their best to make it successful. Special thanks to Dr. Makarand Chavan, Dr. Jaiprakash, Dr. Yahtiraj, Dr. C. B. Singh and Dr. Sashanka Datta.





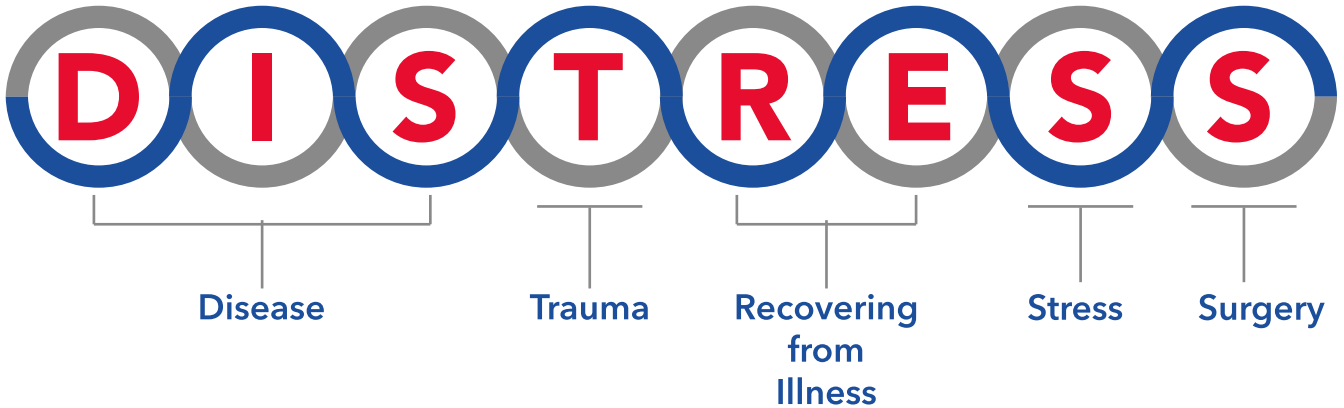


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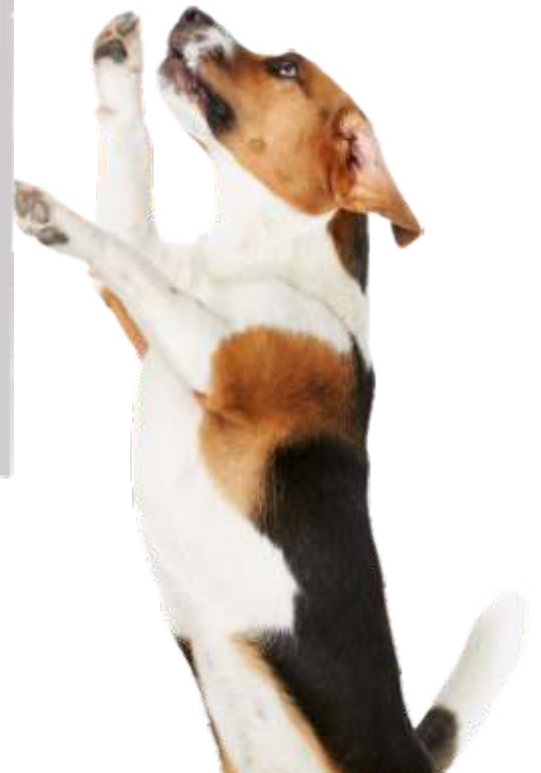


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SCAN TO KNOW MORE



Highlights of PPAM and Mankind CE program held on 25.03.2023

PPAM and Mankind Company conducted a CE program on 25.03.2023 at Novotel Hotel Mumbai. The lecture on Clinical Diagnosis and Management of Kidney Disease in Canines was delivered by Dr. D. A. Pawalkar, Assistant Professor at Mumbai Veterinary College. Mankind also launched its PETSTAR range of dog food products. A large number of pet practitioners from Mumbai attended the launch.



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