

**ABSTRACT-(JCDR-2011, VOLUME-VII)**

**Canine Research**

**1. CANINE PYOMETRA: AN UPDATE ON  
ETIO-PATHOGENESIS**

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**ABSTRACT**

The review aimed to report current information on etio-pathogenesis of pyometra. It includes hormonal component, hormone receptors, microbial component, infection routes, systemic effects of pyometra, systemic inflammatory response syndrome, endotoxemia and systemic effects, endotoxemia and polyuria.

**Key words:** Canine pyometra, etiology, pathogenesis.

**2. STUDIES ON PREVALENCE, CLINICAL MANIFESTATIONS AND  
THERAPEUTIC MANAGEMENT IN DOGS SUFFERING FROM  
CANINE PARVOVIRUS (CPV) INFECTION**

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**ABSTRACT**

This study was conducted to diagnose the Canine parvovirus in dogs by using BIOCBD canine parvovirus Ag test kit. Out of 60 dogs examined, 18 dogs were suffering from canine parvovirus and were compared with 10 apparently healthy dogs. An overall prevalence of 30 % was observed. The highest incidence was found in pups of six months age. Rottweiler was found to be most commonly affected breed of dogs. Mortality rate observed in canine parvovirus was 27.77%. Vomition and diarrhoea were evident in all the cases. The normal clinico-physiological parameters showed significant increase on 1<sup>st</sup> day of treatment and were within normal physiological limits on 5<sup>th</sup> day of treatment. The symptomatic therapy which included ceftriaxone, haemocoagulase enzyme, metaclopramide, ranitidine, DNS 5%, Ringer's lactate, combination of levofloxacin and ornidazole and ascorbic acid were found highly effective treatment for canine parvovirus infection.

**Key words:** Canine parvovirus, clinico-physiological parameters, prevalence, therapeutic management.

### 3. EPIDEMIOLOGICAL AND HAEMATOLOGICAL STUDIES OF CANINE MAMMARY GLAND TUMOURS

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#### ABSTRACT

The epidemiological survey of canine mammary tumours and retrospective studies revealed that out of 4530 dogs 4.42 % females and 0.15% male dogs had mammary tumors. The mammary tumours were more prevalent in last two pairs of mammary glands in non-ovariectomised bitches in the age group of 8-12 years. Pomeranian (40%) was found to be most susceptible breed to develop mammary tumours followed by Doberman (25%), Mongrels (15%), Alsatian (10%), Dachshund (5%) and Cocker- Spaniel (5%). The platelet count and ANC were found to be significantly higher in tumour bearing dogs.

*Keywords:* Canine, epidemiology, haematology, mammary tumour.

### 4. STANDARDIZATION OF SOME PARAMETERS OF <sup>99m</sup>Tc-DTPA RENAL SCINTIGRAM CURVE IN HEALTHY DOGS

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#### ABSTRACT

Scintigraphy (<sup>m</sup>Tc-DTPA) was performed in 25 apparently healthy dogs of either sex or breed. Scintigram curves were evaluated subjectively as well as quantitatively by calculation of mean renal transit times, time to peak activity and half-time clearance besides flattening of curve. Shape of renal scintigram curves was found normal in 88 % of dogs while in 12 % unilateral increment in time for filtration phase was noticed although these three dogs were healthy clinically as well as their kidney function tests (BUN and Serum creatinine) were within reference range. Present study recorded  $0.49 \pm 0.16$ ,  $2.52 \pm 0.5$  and  $3.56 \pm 0.45$  minutes as time of peak activity in perfusion phase, Filtration and excretion phase respectively. Mean  $T^{1/2}$  of perfusion and filtration phase was  $0.34 \pm 0.08$  and  $0.85 \pm 0.17$  min while in excretion phase was  $8.8 \pm 2.52$  min. The mean count rate was  $21317.6 \pm 12850$  in perfusion phase,  $36202.9 \pm 18540$  and  $42230.05 \pm 13670$  in filtration and excretion phase, respectively.

*Key words:* Diethylenetriamine-pentaacetic acid, dogs, renal scintigram curve and three phase analysis.

## **5. PREVALENCE OF REPRODUCTIVE DISORDERS IN BITCHES**

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### **ABSTRACT**

A four-year (retrospective) study was conducted to determine the prevalence of reproductive disorders in bitches at Veterinary Gynaecology Clinic, Bikaner, from January 2008 to December 2011. Bitches presented for estrus detection (36/165) by vaginal cytology and pregnancy diagnosis (48/165) by ultrasonography were considered physiological cases. Out of total 165 bitches presented to the clinics, the prevalence of various reproductive disorders was pyometra (12.12%), transmissible venereal tumor (10.30%), dystocia (7.87%), anestrus (6.06%), pseudopregnancy (4.24%), mismating (3.63%), ovarian cyst (1.81%), vaginitis (1.21%), SIPS (1.21%) and metritis (0.60%). It was concluded that bitches are commonly referred for physiological diagnosis of estrus and pregnancy; and pyometra and TVT are the commonest pathologies observed in bitches.

*Key words: Bitches, pseudopregnancy, pyometra, reproductive disorders, transmissible venereal tumor.*

## **6. PROBIOTICS IN THERAPEUTIC MANAGEMENT OF DIARRHOEA IN DOGS**

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### **ABSTRACT**

A study was conducted on twenty dogs exhibiting symptoms of gastroenteritis to assess the role of probiotics in its therapeutic management. The trial was performed as a randomised and single centre study with stratified parallel group design. Ten clinical cases were treated by the use of DNS and Ringer lactate, Ceftriaxone, Botropase, Metaclopramide, Ranitidine and Multivitamins infusion while 10 clinical cases were treated with all the previous mentioned drugs along with probiotics- lactic acid bacillus spores. The study revealed that use of probiotics helps in the early recovery of animals from gastroenteritis along with antibiotic and supplement therapy.

*Key words: Dog, diarrhoea, gastroenteritis and probiotics.*

## 7. CANINE EHRLICHIOSIS – PREVALENCE AND CLINICAL STUDY

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### ABSTRACT

Out of 1500 dogs screened during the present study the prevalence of *Ehrlichia canis* was 1.73%. A higher prevalence was recorded in dogs below one year age. Clinical signs including depression, inappetence, fever, ascites and jaundice were noticed. The hematological examination revealed anemia, leukopenia and thrombocytopenia.

**Key words:** *Dog, Ehrlichia canis, prevalence, thrombocytopenia.*

## 8. HAEMATOLOGICAL STUDIES ON CANINE DISTEMPER IN DOGS

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### ABSTRACT

An attempt was made to diagnose the Canine distemper in dogs by Rapigen canine distemper Ag test kit. Out of 52 dogs, 10 dogs were found positive for canine distemper and their hematology was conducted and compared with 10 apparently healthy dogs. Haematological parameters viz Hb, PCV, TEC, TLC, showed significant increase before treatment with decrease up to control values had been seen after treatment. A significant decrease in total platelet count was observed on 1<sup>st</sup> day of treatment, then significant increase was observed on 12<sup>th</sup> day of treatment but lower than healthy control group. Differential leucocyte count showed significant increase in neutrophils and decrease in lymphocytes and monocytes were observed on 1<sup>st</sup> day of treatment which decreased and increased, respectively on 5<sup>th</sup> day of treatment.

**Key words:** *Canine distemper, dogs, haematology.*

## 9. THERAPY OF ANESTRUS BITCHES BY USING AN ANTIPROLACTIN DRUG

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### ABSTRACT

The effect of oral administration of bromocriptine, an anti-prolactin drug on the induction of fertile estrus in bitches belonging to different breeds and age groups (n=40) is described. Anestrus bitches were treated with bromocriptine orally for 7 consecutive days and 70% (n=28) responded to the treatment within  $8.11 \pm 0.19$  days. The side effect noticed was vomition which was more pronounced in the Pug breed. Oral administration of promethazene was suggested before administration of bromocriptine to bitches with severe vomition. The duration of proestrus and estrus was found to be  $9.07 \pm 0.21$  and  $6.86 \pm 0.14$  days respectively. The overall conception rate in relation to the number of animals subjected to the estrous induction trial was 50 per cent. It was concluded that bromocriptine can be given to anestrus bitches for induction of a fertile estrus.

**Key words-** *Antiprolactin durg, bitches, bromocriptine, estrous induction*

## 10.MANAGEMENT OF ANXIETY INDUCED ACRAL LICK DERMATITIS IN DOGS

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### ABSTRACT

Clinical study for acral lick dermatitis was undertaken in dogs (n=6) with excessive licking at carpus of left fore limbs. Death of companion dog was observed in four dogs, while in two dogs decreased time spend by owners with their dogs was the precipitating factor. Mean age of clinical presentation was  $4.08 \pm 0.24$  years while mean of duration of lesion before clinical examination was  $21.0 \pm 4.70$  months. Lesions were well demarcated, oval, alopecic, ulcerated with peripheral hyperpigmentation and thickening. Labrador Retriever and Doberman breeds were mostly affected. Bacteriological examination revealed infection of *Staphylococcus Intermedius* in four dogs and *Escherichia coli* in two dogs. Management included behavioral modification and medical therapy with Fluoxetine, topical application of Fluocinolone acetonide, intralesional injection of hydrocortisone, tab amoxicillin plus clavulanic acid and phenermine maleate.

**Key words:** *Acral lick dermatitis, canine stereotypic behaviour.*

## 11. CLINICO-HAEMATO-BIOCHEMICAL CHANGES IN CANINE BABESIOSIS

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### ABSTRACT

In a clinico-haemato-biochemical study all the ten dogs infected with *Babesia* species exhibited high rise of body temperature, anorexia, weakness, haemoglobinuria, weight loss and pale mucous membrane. Haematology revealed significant decrease in haemoglobin, total erythrocyte counts and packed cell volume . Differential leucocytes count revealed neutrophilia and lymphocytopenia. Serum AST, ALT and total bilirubin were significantly increased.

*Key words: Babesiosis, canine, haemato-biochemical changes.*

## 12. BONE TUMOUR WITH METASTASIS IN LUNG IN A BITCH - A Case Report

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### ABSTRACT

A case of malignant bone tumour with metastasis in lungs in a ten year old Pomeranian bitch is described and discussed. The bitch had the history of anorexia and fever for 14 days and lameness for 3 months that remained unresponsive to calcium, liver tonics, enrofloxacin, meloxicam and erratic fluid therapy given by field veterinarian. Detailed clinical examination revealed poor general condition, dullness, depression, vomiting, lameness (abducted right fore limb), swollen right elbow joint, pyrexia (104.2° F), arrhythmia, decreased lung sounds in cranial chest, coughing, inability to climb, hepatomegaly, preponderance of small amoeboid, oval/rounded trophozoites of different sizes in erythrocytes resembling with those of *Babesia gibsoni*, cotton wool patches in lungs in chest radiographs, osteolytic changes in the proximal end of right ulna and soft tissue changes in right forelimb radiographs. The bitch was initially treated with clindamycin, diminazene aceturate, prednesolone, fluid and vitamin B- complex for babesiosis and after 5 days with cisplatin therapy.

*Key words: Babesia gibsoni, cisplatin, clindamycin, cottonwool patches, diminazene, osteolysis, sinus arrest.*

### **13. HAEMATO-THERAPEUTIC STUDIES ON CANINE DISTEMPER**

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#### **ABSTRACT**

Five 5 dogs (between 3 to 4 months of age, irrespective of sex) suffering from canine distemper, diagnosed on the basis of history, clinical signs and Rapigen Canine Distemper Ag test kits and 5 normal dogs of same age group were included for clinical study. Canine distemper infected dogs on first day had significantly higher values of hemoglobin, total erythrocyte count, packed cell volume and total leucocytes count as compared to healthy control. These values decreased significantly on fifth day of treatment in these cases and appeared almost near to healthy control. All the positive cases were treated successfully with ceftriaxone and tazobactam, metoclopramide, ranitidine, 5% DNS, Ringer's lactate, ascorbic acid, isopredone acetate and levofloxacin and ornidazole.

*Key words: Ag test kits, canine distemper, therapeutic studies.*

### **14. PANCREATITIS ASSOCIATED WITH CLINICAL BABESIOSIS IN DOG – A Case Report**

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#### **ABSTRACT**

A dog presented with high activity of serum amylase (2159 IU/L) and lipase (627 IU/L) with, babesiosis, unresponsive to babesicidal and supportive therapy, indicated pancreatitis associated with babesiosis. Pancreas was also visible ultrasonographically with change in normohomogenous echo density. Secondary azotemia (blood urea nitrogen 118.61 mg/dl and serum creatinine 8.92 mg/dl) and hepatic involvement (marginal increase in serum ALT 190 IU/L) were associated complications. The dog responded favourably to chlorpromazine, butorphanol and fluid therapy.

*Key words: Acute pancreatitis, BUN, B. Gibsoni, serum amylase, creatinine, lipase.*

## **15. SURGICAL REMOVAL OF AN UNUSUALLY LARGE CYSTOLITH IN A BITCH**

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### **ABSTRACT**

A non-descript bitch was presented for the treatment of anuria which was radiographically diagnosed as a case of urocystolith. An unusually large cystolith was removed via cystotomy procedure and the animal made an uneventful recovery.

*Key words: Cystotomy, radiography, urolithiasis*

## **16. MULTIPLE CYSTIC CALCULI AND ITS SURGICAL MANAGEMENT IN A DOG - A Case Report**

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### **ABSTRACT**

A five years old male Labrador dog was presented with history of dribbling of blood tinged urine since 10 days and there was complete cessation of urine since 24 hours. C-arm examination of abdomen revealed presence of two table tennis ball sized growths with many small radiopaque substances inside bladder area. Cystolith was confirmed by pneumocystography. Cystotomy was performed and two large sized growths with many small sized cystoliths were found and they were removed. After the surgery the dog came to its normal micturation and recovered uneventfully.

*Key words: Cystic calculi, dog, surgical management.*



## **17. SURGICAL MANAGEMENT OF INGUINAL HERNIA IN BITCH - A CASE REPORT**

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### **ABSTRACT**

A bitch with swelling in the inguinal region arising out of trauma was presented. Clinical examination revealed inguinal hernia (reducible swelling was about 7 cm in diameter) and hernial content was small intestine. Herniated organ appeared to be moderately soft which move freely in or out of the hernial sac. Herniorraphy using overlapping sutures was performed under general anaesthesia. The dog recovered uneventfully.

*Key words: Bitch, hernia, herniorraphy.*

## **18. RESTORATIVE MANAGEMENT OF PHORATE POISONING IN A DOG**

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### **ABSTRACT**

A German Shepherd male dog having ants eating vice was diagnosed for phorate poisoning. Clinical examination revealed vomiting, hemorrhagic diarrhea, incoordination of gait, frequent dribbling of urine, hyper-salivation, constricted pupils, respiratory distress, subnormal rectal temperature, tenesmus, dilated anal sphincters and generalized muscular tremors. The dog was treated with atropine sulfate, pralidoxime iodide, NSS, furosemide, vitamins B-complex and S-adenosyl-L-methionine. The dog commendably recovered from the clinical manifestations within 3 hours of administration of therapeutic regime and regained his normal appetite within 7 days post-therapy.

*Key words: Dog, phorate, poisoning, pralidoxime iodide*

## **19. WOUND HEALING BY LOW LEVEL LASER THERAPY IN DOG - A Case Report**

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### **ABSTRACT**

A 4 year dog was brought to TVCC Jabalpur, with the history of a 3 days old open wound in the right hind limb on upper lateral aspect. Clinical examination revealed rectal temperature of 101.8<sup>0</sup> F, respiration rate of 16/min and pulse rate of 87/min. The wound was not suitable for suturing as it was the case of chronic dog bite wound, hence low level laser therapy was used at the dosage of 10Hz frequency for 4 min at 2.4 J for 7 continuous days along with administration of antibiotic amoxicillin & cloxacillin@ 500mg /Kg b.wt bds for 3 days and antiseptic dressing with povidone iodine and ointment vetbacin. On 3<sup>rd</sup> post therapeutic day hemato-biochemical parameters suggested a decrease in neutrophil with an increase in lymphocyte count along with decrease in alkaline phosphatase and creatinine kinase level. On 7<sup>th</sup> post therapeutic day about 92% healing was observed.

*Key words: Dog, low level laser therapy, wound*

## **20. SURGICAL MANAGEMENT OF TRAUMATIC EXOPHTHALMUS IN A DOG**

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### **ABSTRACT**

A 2 year old pug was presented with prolapsed left eye with a history of trauma on its head. Clinical examination revealed displacement of the globe, dry cornea and swelling on extra ocular muscles and was diagnosed as exophthalmus with pigmentary keratitis. The displacement of the globe was replaced manually under anesthesia and temporary tarsorrhaphy was done. The dog recovered uneventfully.

*Key words: Dog, traumatic exophthalmus pigmentary keratitis.*

## **24. A RARE CASE OF CONGENITAL UNILATERAL BUPHTHALMOS AND ANOPHTHALMIA IN A KITTEN**

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### **ABSTRACT**

A nondescript full term kitten weighing 135 gm was delivered by caesarean section. Immediate examination revealed unilateral buphthalmos (left eye) and clinical anophthalmos (right eye).

***Key words:*** Anophthalmia, buphthalmos, kitten.