

Dr. Panikar  
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**EIGHTEENTH ANNUAL CONGRESS OF  
INDIAN SOCIETY FOR VETERINARY SURGERY  
AND NATIONAL SYMPOSIUM ON**

**"Recent Advances in Diagnostic Veterinary Radiology"  
December 7-9, 1994**

**SOUVENIR & ABSTRACTS**



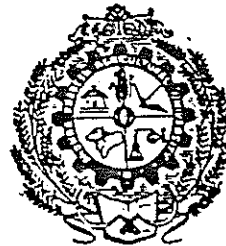
**Department of Surgery & Radiology  
A.P. Agricultural University  
College of Veterinary Science  
Tirupati - 517 502**



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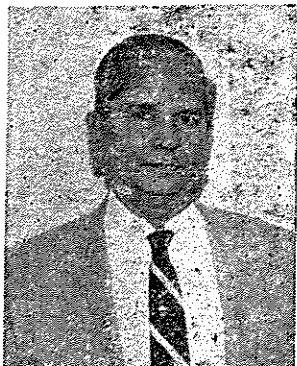
Raj Bhavan  
Hyderabad-500 041.

Dated : 7-11-94

Best wishes for success of Conference on "Recent Advances in Diagnostic Veterinary Radiology" being held from 7-9 December, 1994 at Tirupati.

By order of

**SRI KRISHNAKANTH**  
His Highness of Governor of  
Andhra Pradesh



**ANDHRA PRADESH  
AGRICULTURAL UNIVERSITY**  
RAJENDRANAGAR, HYDERABAD-500030

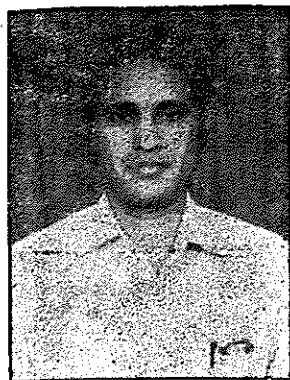
**M. V. RAO**  
VICE-CHANCELLOR

I am extremely happy to know that the Department of Surgery and Radiology, College of Veterinary Science of Andhra Pradesh Agricultural University, Tirupati is organising a symposium on "Recent Advances in Diagnostic Veterinary Radiology". Among the different methods of diagnosis, Radiology has revolutionised the technique of diagnosis and cure of many complicated maladies and diseases of animals and human beings. The advances in Diagnostic Veterinary Radiology are achieved due to the dedicated and pioneering research of several Veterinary Scientists such as Dr. RICHARD EMERLIN, who is considered the father of Veterinary Radiology. Possibilities exist to further accelerate the pace of advancement in the techniques of radiology to provide succour to animals and human patients alike. The deliberations of this symposium by renowned Veterinary Scientists from India and abroad, I am sure, would provide new directions in the promotion and use of Diagnostic Veterinary Radiology.

I congratulate the organisers of the symposium particularly Dr. O. Ramakrishna, Principal and Professor and University Head, Department of Surgery and Radiology for taking the initiative to organise the National Symposium.

I wish the symposium a grand success

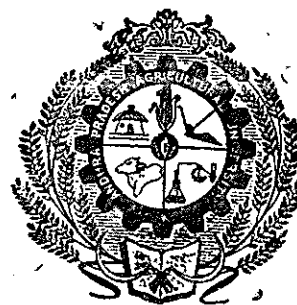
**M. V. RAO**



**Dr. V. JAYARAMA KRISHNA**

M.V Sc , Ph D. (U.S.A.)

Dean, Faculty of Veterinary Science



ANDHRA PRADESH  
AGRICULTURAL UNIVERSITY

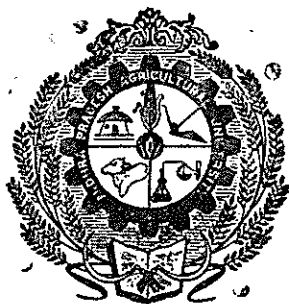
Rajendranagar HYDERABAD-500 030  
Andhra Pradesh India

I am very glad to know that the 18th Congress of Indian Society for Veterinary Surgery and National Symposium on Recent Advances in Diagnostic Veterinary Radiology is holding its annual conference at the College of Veterinary Science, Tirupati from 7th to 9th December, 1994 to exchange and share scientific experience in the areas of Veterinary Surgery and allied fields

Veterinary Surgery and Radiology is gaining importance due to growing demand from the people rearing pets and increased economic activity in Animal Husbandry sector. Veterinarians are looked upon to deliver modern surgical interventions to restore the health, wealth and well being of a variety of animals and birds and this role is well played by the Veterinary surgeons. However, there is a greater need to improve techniques and skills of Veterinary Surgeons through experimental surgery. I hope that the needs of Veterinary education and profession will be identified by galaxy of Indian Veterinary Surgeons assembled at this conference.

I wish the delegates to the 18th Congress of Indian Society for Veterinary Surgery and National Symposium on Recent Advances in Diagnostic Veterinary Radiology all success and glory in their professional endeavours.

V. Jayarama Krishna



T. SATHYANARAYANA REDDY

REGISTRAR

B.Com , LL.B.

ANDHRA PRADESH  
AGRICULTURAL UNIVERSITY

Administrative Office

Rajendranagar HYDERABAD-500 030

Dear Dr. Ramakrishna garu,

I am happy to know that a Souvenir is being brought out in connection with the "18th Congress on Indian Society for Veterinary Surgery and National Symposium on Recent Advances in Diagnostic Veterinary Radiology" being held at the College of Veterinary Science, Tirupati from 7th to 9th December, 1994.

I wish all success for the session and the symposium.

Yours sincerely

T. Sathyanarayana Reddy

**MOHAN KANDA** IAS..  
PRINCIPAL SECRETARY TO GOVT.

AGRICULTURE & COOPERATION DEPT.  
SECRETARIAT, HYDERABAD-500 022

Dear Dr. Ramakrishna

I am happy to learn that 18th Congress of ISVS and National Symposium is conducting a Conference on "RECENT ADVANCES IN DIAGNOSTIC VETERINARY RADIOLOGY" in December this year

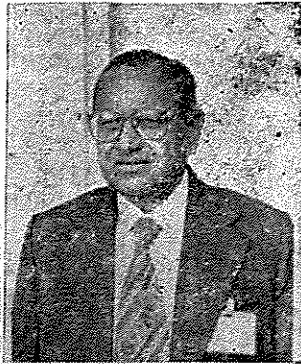
I feel confident that the deliberations will result in valuable contributions being made to furthering the cause of improving the quality of service in the field of veterinary medicine.

I wish the conference all success.

with regards,

Yours sincerely

Mohan Kanda



Dr. I. V. SUBBA RAO  
DIRECTOR OF RESEARCH



ANDHRA PRADESH  
AGRICULTURAL UNIVERSITY  
RAJENDRANAGAR, HYDERABAD-500030

My Dear Dr. Ramakrishna,

I am very happy to learn that you are organising the 18th Congress of ISVS & National Symposium on Recent Advances in Diagnostic Veterinary Radiology at College of Veterinary Science, Tirupati from 7th to 9th December, 1994. Whether in human-beings or animals or plants diagnosis, rapidly and correctly, goes a long way in correction and treatment of diseases. Several modern techniques have come in handy for this purpose. Recent advances in radiology have helped in proper and correct diagnosis of many ailments which otherwise would have been extremely difficult or even impossible in some cases to do so. Similar advances in surgery have also taken place. In this context, the Organisation of 18th Congress of ISVS & a National Symposium is timely. This would help us to know the state of art in these fields, which would enable us to plan properly the future research and developmental programmes. Appropriately the organisers have thought of bringing out a Souvenir on this happy occasion. It is hoped that the deliberations would be fruitful and would lead to meaningful recommendations for planning future course of action in Research and Development efforts in the above fields.

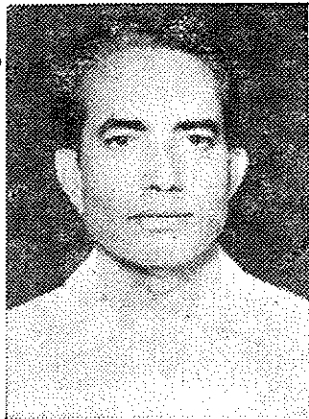
I wish the Congress and the National Symposium and the deliberations all success

With warm regards,

Yours sincerely

I. V. SUBBA RAO





**Dr. R. P. S. TYAGI**  
VICE-CHANCELLOR

Himachal Pradesh Krishi Vishvavidyalaya  
PALAMPUR INDIA

I am happy to learn that the 18th Congress of ISVS and National Symposium on "Recent Advances in Diagnostic Veterinary Radiology" is being held at the College of Veterinary Science, Tirupati from 7-9 December 1994. The theme chosen for the symposium is very appropriate and timely keeping in view the tremendous development taking place in the field of Veterinary Radiology all over the world. I feel now the time has come when we should expand and develop Radiology as an independent discipline keeping in view the importance of it in the field of diagnostics.

The department of Surgery and Radiology at Tirupati over the years has developed in one of the best departments in the country in terms of teaching, research and clinical facilities. The scientists of this department have achieved laurels specially in the field of Acupuncture.

I am sure the deliberations in the symposium will be productive and fruitful and I congratulate the organisers and wish them a success.

— R. P. S. TYAGI



Prof. AMRESH KUMAR,  
DEAN STUDENT WELFARE  
Govind Ballabh Pant  
University of Agriculture &  
Technology  
Pantnagar-263145  
Dist. Nainital (U.P.)

I am very happy to note that 18th Congress of ISVS and National Symposium on "Recent Advances in Diagnostic Veterinary Radiology" is being organised at the College of Veterinary Science, Tirupathi from 7th to 9th December, 94. Indian Society of Veterinary Society has glorious past, It has been organising the technical sessions and national symposium annually in one part of the country or the other besides regularly publishing a journal and the newsletter. It is the Second national Congress being organised at Tirupathi after a gap of 10 Years. This year symposium on "Recent Advances in Veterinary Radiology" is of great significance as radiology is now being extensively used for diagnostics purpose in veterinary medicine and lot of advance in diagnostic radiology has been made during the last decade. This Congress, I am sure, will provide a platform for the exchange of technical know-how and updating the knowledge not only in veterinary radiology but in other allied areas of surgery and clinics as the papers from various academic institutions, polyclinics and field veterinarians will be presented in other technical sessions.

I am confident the deliberations of the Congress in the National Symposium will greatly benefit the teachers, clinicians and the students engaged in diagnostic management of diseases.

I convey my greetings and wish the "18th Congress of ISVS and National Symposium" a great success.

Amresh kumar

**Dr. V. GNANAPRAKASAM**

M.V.Sc., Ph.D.

VICE-CHANCELLOR

**TAMIL NADU VETERINARY AND  
ANIMAL SCIENCES UNIVERSITY**

Madras-600 007. India



I am happy to note that the Indian Society of Veterinary Surgeons has organised the National Symposium on "Recent advances in diagnostic Veterinary Radiology" at College of Veterinary Science, Tirupati, Andhra Pradesh Agricultural University, during December '94.

Surgery is an onerous field in Veterinary Science. It is always said that the surgeons must have two things for diagnosis of Surgical conditions - sharp eyes and sensitive fingers. In human medicine, the radiodiagnosis has revolutionized the medical profession without which the diagnosis of many disease conditions are difficult. There is also vast scope for the radiodiagnosis in Veterinary medical and surgical field.

I am sure that the delegates will use this forum for exchange of their expertise in Veterinary radiodiagnosis.

I convey my felicitations and best wishes for the successful conduct of the National symposium in a grand manner

V. Gnanaprakasam

**Dr. S. ABDUL REHMAN**

DIRECTOR OF INSTRUCTION  
VETERINARY COLLEGE  
HEBBAL, BANGALORE-560024,

It is indeed a great pleasure and privilege to note that the Indian Society for Veterinary Surgery is holding its 18th Congress and National Symposium at College of Veterinary Science Tirupati. I am sure this symposium will explore new vistas of recent advances in Diagnostic Veterinary Radiology,

I am happy to note that more than two hundred distinguished delegates would participate in the deliberations. Alleviation of the disease and disorders by refinement of surgical techniques can go a long way in the treatment of dumb animals.

I extend my good wishes and warm greetings to all the concerned and wish the symposium a grand success.

**Dr. S. Abdul Rehman**

**WEST GODAVARI CATTLE BREEDERS ASSOCIATION**

Regd. No 81/69 ANDHRA PRADESH

SECRETARY :

Mullapudi NARENDRANATH

Tanuku-534 211

Dear Dr. Ramakrishna garu,

I am glad to know that the "18th Congress of the ISVS & National Symposium" is being held at the College of Veterinary Science, Tirupathi.

Large & small animal surgery has attained importance now that the value of Livestock and their contribution to the economy of the Farming families has increased substantially. we have seen the good work your students have been doing in the field. There is every need for the Surgery students to be acquainted with the latest developments in this field at least cost, for Dogs - Cattle & Buffalo. We hope the participants of this congress will deliberate on this aspect to improve the proficiency of the students in this field.

I wish the Congress/Symposium all success.

With regards,

Sincerely,

For West Godavari Cattle Breeders Association

Secretary

## VETERINARY COUNCIL OF INDIA

Dr. C.M. SINGH  
PRESIDENT

I am happy to note that the Indian Society for Veterinary Surgery is organising a National Symposium alongwith the annual meeting.

I hope that the Scientific deliberations of the Scientific sessions would have way for the professional efficiency development for the specialists in veterinary Surgery.

I wish the session a grand success. I call upon the members to put their heads together and help the Council's efforts to evolve meaningful post-graduate programme.

C. M. SINGH

**Prof. K. PRADHAN**

VICE-CHANCELLOR

ORISSA UNIVERSITY OF AGRICULTURE  
AND TECHNOLOGY, BHUBANESWAR. INDIA

I am extremely happy to learn that the 18th Congress of ISVS and National Symposium on 'Recent Advances in Veterinary Radiology' are going to be held at the College of Veterinary Science Tirupati during December 7-9, 1994.

In recent years, there has been tremendous advancement in the field of Veterinary Surgery including diagnostic Veterinary Radiology compared to the situation as obtained a few years back when the standard surgical manoeuvres like rumenotomy, caesarean section, cystotomy, etc. were practically handicapped due to lack of advanced scientific know-how and tool in the field of diagnostic radiological examination. I am confident that the scientists shall have an opportunity to have very fruitful deliberations for better utilisation of the advanced knowledge technology not only for understanding the surgical problems keeping in view the benefits to the livestock farmers but also for strengthening the skill of the veterinarians

I wish the symposium all success

— K. Pradhan

## **Eighteenth Congress ISVS**

and

## **National Symposium**

On

*"Recent advances in diagnostic Veterinary Radiology"*

**Organised by**

**Patron : Dr. M.V. Rao**

Vice-Chancellor

A.P. Agricultural University

**Chairman : Dr. V. Jayarama Krishna**

Dean of Veterinary faculty

A.P. Agricultural University

- RECEPTION COMMITTEE** : Dr. P.C. Choudhuri, Professor, Medicine  
Dr. K. Narasalah Naidu, Professor, Dairy Sci.  
Dr. K. Sreeramulu Reddy, Professor, Meat Sci.  
Dr. N.R. Gopal Naidu, Assoc. Prof. Pathology.  
Dr. K. Krishna Reddy, Scientist, AICRP Pigs.  
Dr. S. Rami Reddy, Principal, S.V. Agril. Col.  
Dr. G. Venkateswara Reddy, Assoc. Director  
of Research, RARS. Tirupati.
- REGISTRATION AND FINANCE COMMITTEE** : Dr. K. Subramanyam Naidu, Asst. Prof. Gynaecology  
Dr. P.A. Hamza, Asst. Prof., Medicine.  
Dr. Vijaya Singh, Asst. Prof., Gynaecology.  
Dr. Shobhamani, Vety. Officer, AICRP on Pigs.  
Dr. Nalini Kumari, Asst. Professor, Medicine.
- TRANSPORT COMMITTEE** : Dr. C. Harinadha Rao, Assoc. Prof. Genetics.  
Dr. U. Venkateswarlu, Asst. Prof., Pharmacology.  
Dr. K.V. Rao, Assoc. Prof., Surgery.  
Dr. T.S. Chandrasekhara Rao, Asst. Prof. Anat.
- ACCOMMODATION COMMITTEE** : Dr. M.V. Subba Rao, Professor, Microbiology.  
Dr. P.V.V. Satyanarayana Reddy, Assoc. Prof.,  
Poultry Sci.  
Dr. K. Veerabramhalah, Asst. Prof. Gynaecology.  
Dr. P.S.R. Murthy, Asst. Prof., Dairy Science.
- HALL ARRANGEMENTS & AUDIO VISUAL AIDS & SCIENTIFIC PROGRAMME** : Dr. R. Ramachandra Reddy, Assoc. Prof. FFT.  
Dr. G.V. Lakshmlpathi, Assoc. Prof. Surgery.  
Dr. Sudhakar Rao, Asst. Professor, Extension.



- POSTER SESSION  
ARRANGEMENTS &  
EXHIBITION BY  
COMPANIES** : Dr. N. Krishna, Professor, Animal Nutrition.  
Dr. K. Veeraraghava Reddy, Assoc. Prof. Exten.  
Dr. Sudhakar Rao, Asst. Professor, Extension.
- PUBLIC RELATIONS &  
CATERING COMMITTEE** : Dr. Md. Hafeez, Professor, Parasitology.  
Dr. B.V.R.Rao, Assoc. Prof., dairy Tech.  
Dr. Pramod Kumar, Asst. Prof., anatomy.  
Dr. Veeroji Rao, Asst. Prof., Genetics.  
Mr. M. Mallikarjuna Rao, Asst. Dir. Phy. Edn.  
Dr. A. Venkatramaiah, Assoc. Prof. Poultry Sci.
- SOUVENIR COMMITTEE** : Dr. S. Gopinath, Assoc. Prof., anatomy  
Dr. N.V. Rao, Assoc. Prof., Surgery.  
Dr. V.R. Chendra Reddy, Assoc. Prof. Genetics.
- CULTURAL PROGRAMME  
COMMITTEE** : Dr. K. Chaitanyam, professor, Poultry Sci.  
Dr. N.V. Rao, Assoc. Prof., Surgery.  
Dr. P.S. Karunanidhi, Assoc. Prof., medicine.  
Dr. M. Ranganadham, Asst. Prof., Dairy Sci.  
Dr. Z. Prabhakar Rao, Assoc. Prof., Anim. Nutr.
- SIGHTSEEING AND  
TEMPLE VISIT COMMITTEE** : Dr. M.R.L.Prabhu, Assoc. Prof., Biochemistry.  
Dr. Sudhakar Reddy, Asst. Prof., Biochem.  
Dr. T. Suri Babu, Assoc. Prof., Microbiology.
- FOOD COMMITTEE** : Dr. K. Krishna Reddy, Assoc. Prof., Physiology.  
Dr. N. Satyanarayanacharyulu, Assoc. Prof.,  
Parasitology.  
Dr. N. Damodar, Assoc. Prof., Meat Science.  
Dr. K. Venugopal Naidu, Asst. Prof., Gynaecol.
- EMERGENCY MEDICAL AID** : Dr. V. Prabhakar Reddy, Medical Officer  
Dr. (Mrs.) Jhansi Lakshmi, Medical Officer
- ENQUIRY COMMITTEE** : Dr. M. Ayyanna Naidu, Assoc. Prof. Poultry  
Science.  
Dr. P. Ravi Kumar, Asst. prof., Pharmacology.

## TECHNICAL PROGRAMME

Date : 7.12.1994 (Wednesday)

7.30 to 8.30	: Break Fast
8.30 to 9.30	: Registration at main building
10.00 to 11.30	: Inaugural session (Veterinary College Auditorium)
11.30 to 12.00	: Tea ( <b>Chadalavada</b> )
	: Guest Lecture : <b>Dr. P. Sreehari Rao</b>
12.00 to 13.00	: <b>Theme Session - I</b>
13.00 to 14.00	: Lunch (APAU)
14.00 to 16.00	: <b>Anaesthesiology Session - II</b> ✓
16.00 to 16.30	: Tea ( <b>Alarsin</b> )
19.00 to 20.00	: Entertainment Programme : (Auditorium)
20.30	: Dinner ( <b>Hyderabad Race Club</b> )

Date : 8.12.1994 (Thursday)

7.30 to 8.30	: Break Fast
8.30 to 10.00	: Guest Lecture : <b>Dr. P.O. George</b>
	<b>Large Animal Surgery Session - III</b> ✓
10.00 to 11.00	: Tea (Growmed, Delhi)
	<b>Poster Session IV</b>
11.00 to 13.00	: <b>Small Animal Surgery Session - V</b> ✓
13.00 to 14.00	: Lunch
	: ( <b>West Godavari Cattle Breeders Association</b> )
14.00 to 15.00	: <b>Experimental Surgery Session - VI</b>
15.00	: Balaji Darshan
21.00	: Dinner

**Date : 9.12.1994 (Friday)**

- |                |   |   |
|----------------|---|---|
| 7.30 to 8.30   | : | Break Fast  |
| 9.00 to 9.30   | : | Guest Lecture : <b>Dr. T.P. Sastry</b> , CLRI, Madras |
| 9.30 to 10.00  | : | Tea Break   |
| 10.00 to 13.00 | : | <b>Orthopaedic Surgery Session - VII</b> ✓            |
| 13.00 to 14.00 | : | Lunch ( <b>Indo-Swiss Project</b> )                   |
| 14.00 to 16.00 | : | <b>Business Session</b>                               |
| 16.00 to 16.30 | : | Tea Break   |

## THEME SESSION - I

Guest Lecture : *Dr. P. Srihari Rao*

BVSC. M.B.B.S., M.S.(Gen.Surg.) M.S.(Plastic Surg.)  
Dean, Kilpauk Medical College, MADRAS

Lead paper : *Dr. Harpal Singh*

Chairman : *Dr. J. Mohanty*

Rapporteur : *Dr. T.K. Gahlot*

TS - 1

### OPACIFICATION TIME AND PERIOD OF IOHEXOL AND IOPAMIDOL MYELOGRAMS

*S. Thilagar, M.S. Gopal, M.S.Dewan Muthu Mohammed.*

Veterinary College and Research Institute - Namakkal  
Tamil Nadu Veterinary and Animal Science University.

Thirty Six dogs of either sex divided into two groups of 18 animals each. In group I and II Iohexol and Iopamidol were injected into the subarachnoid space at the dose rate of 45 mg./l, 60 mg. l and 75 mg l per kg. body weight in 6 animals each. Lateral myelograms of cervical, thoracic and lumbar region were analysed. Opacification time was between 5-10 mts in both the groups at different dose level. In animals experimented with 45 mg./Kg. body weight the opacification period of cervical, thoracic and lumbar region was  $30.00 \pm 0.004$ ,  $37.50 \pm 5.123$ ,  $22.50 \pm 3.354$ ,  $37.50 \pm 3.354$  and  $105.00 \pm 6.708$ ,  $140.00 \pm 10.000$ . In animals injected with 60 mg l/kg. was  $37.50 \pm 3.354$ ,  $65.00 \pm 5.00$ ,  $35.00 \pm 3.162$ ,  $62.50 \pm 6.020$  and  $135.00 \pm 6.708$ ,  $183.33 \pm 3.333$  but in animal treated with 75 mg. l  $\pm$  /kg. the opacification period was  $105.00 \pm 6.708$ ,  $140.00 \pm 10.00$ ,  $135.00 \pm 6.708$ ,  $183.33 \pm 3.333$  and  $145.00 \pm 9.219$  and  $190.00 \pm 6.324$ .

TS - 2

### MYELOGRAPHIC EVALUATION OF SPINAL COMPRESSION IN CALVES A CLINICAL STUDY

*S. Thilagar, R. Ganesh, B. Rameshkumar  
R. Sureshkumar, N.N. Balasubramanian*

Department of Surgery, Madras Veterinary College  
Tamilnadu Veterinary and Animal Sciences University, Madras - 600 007.

Two crossbred calves aged 10 and 30 days respectively were referred with symptoms of paraplegia and loss of motor reflexes in both hind limbs. Myelographic evaluation revealed incomplete filling and discontinuation of Ventral subarachnoid space between L6 - L7 in case 1 and complete obstruction at the level of T6 - T7 in case 2. In case 1 myelographic procedure was repeated after 15 days of treatment with mannitol and diathermy since there were signs of regaining neurological power which showed filling of the subarachnoid space in the lumbar region.

TS - 3

### A RETROSPECTIVE STUDY OF URINARY OBSTRUCTION IN DOGS A RADIOGRAPHIC STUDY

*S. Thilagar, N.N. Balasubramanian, R. Ganesh  
Archibald David and S.Sasikala*

Department of Surgery, Madras Veterinary College  
Tamilnadu Veterinary and Animal Sciences University, Madras - 600 007.

A total of 130 cases suspected for urinary obstruction which were referred during the period 1989-1993, constituted the material for the study. Obstructions were diagnosed radiographically in left lateral recumbency using 800 mA xray unit. In all the cases the calculi were radiographically visible and were found behind the ospenis, is chial arch and ventral groove of the ospenis. Urinary obstruction was more commonly observed in Non-descript (30.0%) followed by Pomeranean (17.7%) and Alsatioan (16.2%). The incidence was high in animals aged between 4-9 years (70.7%). Large size cystic calculi was observed in small size female. Sex distribution revealed more affection in male (83.8%) than female (16.2%).

TS - 4

### EXPERIMENTAL CYSTOPLASTY IN BUFFALO CALVES RADIOLOGICAL AND BIOMECHANICAL STUDIES

*B. Ramesh Kumar and N.N. Balasubramanian*

Department of Surgery, Madras Veterinary College, Madras - 600 007.

An experimental study was conducted in apparently healthy 18 male buffalo calves randomly divided into 3 groups comprising of 6 animals each. A 5 square centimetre Vent was created on the Vertex of the bladder, It was repaired either with autogenic peritoneum, allogenic bovine bladder wall graft or xenogenic human amniotic membrane graft in groups I, II and III, respectively. The animals were maintained for 15 to 30 days and the healing pattern was assessed by positive contrast cystography using 10% Barium sulphate suspension infused through and urinary catheter. Biochemical studies of the healed bladder was conducted on 15th and 30th post operative days after sacrificing the animals. The bursting pressure of the healed bladder was measured by using an airpump-manometer device and the values were compared with normal bursting pressure of the bladder. Tissue were measured using J.J. Tensile testing machine type T5002 and the values were compared with normal bladder tissue.

TS - 5

### CONTRAST RADIOGRAPHIC STUDY OF THE UTERUS AFTER REPEATED LAPARO-HYSTEROTOMY IN CANINES

*B.B. Das, D.B. Mukherjee and P.K. Samanta*

Deptt. of Veterinary Surgery Radiology

F/o, Vety. Ami, Sc., Bidhan Chandra Krishi Viswavidyalya, Mohanpur, W.B.

Contrast radiographic study of uterus was performed in six laparatomized (control) and thirty six (experimental) mongrel bitches after 100 days of 1st, 2nd, 3rd, 4th, 5th and 6th time following successive hysterotomy on the same line of incision. Comparative evaluations are discussed between single and multiple hysterotomies, and between simple laparotomy and laparohysterotomy.

TS - 6

**ANGIOGRAPHIC AND OSTEOMEDULLOGRAPHIC STUDIES FOR  
EVALUATION OF DEMINERALIZED BONE MATRIX IMPLANTS IN  
FEMORAL FRACTURE REPAIR IN CANINES**

*R.V. Suresh Kumar and O. Ramakrishna*

College of Veterinary Science, Tirupati (A.P.)

Demineralized bone matrix implants and autogenous cancellous bone grafts were evaluated in femoral fracture repair with bone loss in canines, and compared to untreated animals. Angiograms and osteomedullograms were taken at 3, 6, 9 and 12 weeks post operatively using conray-420 as contrast medium. Early angiograms showed leakage of contrast medium into soft tissue. Intensity of Vascularized bone matrix implanted groups. Osteomedullograms of grafted/implanted groups did not show leakage of contrast medium at the defect and fracture site. Early establishment of cortices continuity and draining of contrast medium via extraosseous veins was observed in demineralized bone matrix implanted groups.

TS - 7

**RADIOLOGICAL FINDINGS OF DEMINERALIZED BONE IMPLANTS  
IN FEMORAL FRACTURE AND DEFECT REPAIR IN CANINES**

*R.V. Suresh Kumar and O. Ramakrishna*

College of Veterinary Science, Tirupati (A.P.)

Canine midshaft transverse femoral fractures with bone defects were treated with autogenous cancellous bone grafts and demineralized bone matrix implants. These were compared with untreated control animals. Radiographs were taken at 3, 6, 9 and 12 weeks post operatively. Early osseous union was observed in demineralized bone matrix implanted animals followed by cancellous bone grafted animals. Periosteal reaction was more in control and cancellous bone grafted animals. The rate of extent of new bone formation was rapid and perfect gap filling was noticed in demineralized bone matrix implanted groups. No defect filling was observed in control group even at twelfth week.

TS - 8

**CYSTO URETHROGRAPHY IN CATS- AN EXPERIMENTAL  
STUDY ON 60 CATS**

*Dr. N.N. Balasubramanian, Dr. M.S. Dewan Muthu Mohammed,  
Dr. K.B.P. Ragavender and Dr. Justin Williams*

Department of Surgery, Madras Veterinary College  
Tamilnadu Veterinary and Animal Sciences University, Madras - 600 007

Contrast Cystourethrography were performed on 60 Cats divided into 5 groups consisting of 12 Cats each. Viz.

1. Positive contrast Cystography
2. Pneumocystography
3. Double Contrast cystography
4. Retrograde urethrography
5. Voiding urethrography

Micropulverised barium sulphate suspension (10%) and meglumine iothalamate (10%) were used as positive contrast agents and room air as negative contrast agent. The Catheterisation procedure and radiographic study were performed under Ketamine & Xylazine anaesthesia.

Barium sulphate produced less irritation to urothelium and denser contrast when compared to the iodinate contrast medium. Double contrast cystography showed excellent result. Vesicoureteral reflux was observed as a normal feature in younger cats.

TS - 9

**RADIOGRAPHIC EVALUATION OF INTRAVENOUS PYELOGRAM IN  
CATS - A COMPARATIVE STUDY USING IONIC (CONRAY-420) AND  
NON-IONIC (OMNIPAQUE - 300) CONTRAST MEDIA**

*Dr. N.N. Balasubramanian, Dr. M.S. Dewan Muthu Mohammed,  
Dr. Justin Williams and Dr. K.B.P. Raghavender*

Department of Surgery, Madras Veterinary College  
Tamilnadu Veterinary and Animal Sciences University, Madras - 600 007

Intravenous pyelographic studies were performed on 72 apparently



healthy cats, using either sodium iothalamate (conray-420) or iohexol (omnipaque - 300). The respective drugs were administered at three doses vis. 600, 800 and 1000 mg per kg. intravenously to 12 cats each in sub groups. The contrast media were injected by rapid bolus injections following general anaesthesia. Radiographs were taken to study "nephrogram" and "pyelogram" phases at 0, 5, 20 and 40 mts. after the injections of the particular contrast agent.

At the dose rate of 800 mg/kg. sodium iothalamate, resulted in satisfactory to excellent quality in 75% of the cats, while iohexol resulted in excellent picture in all the cats (100%). The quality of the pyelogram were found to have attained maximum at 20 mts. after injection in both the groups.

**TS - 10**

**RADIOLOGICAL ESTIMATION OF NORMAL KIDNEY SIZE IN THE CAT  
AN EXPERIMENTAL STUDY ON 72 CATS**

*Dr. N.N. Balasubramanian, Dr. M.S. Dewan Muthu Mohammed,  
Dr. Justin Williams and Dr. K.B.P. Raghavender*

Department of Surgery, Madras Veterinary College  
Tamilnadu Veterinary and Animal Sciences University, Madras - 600 007

Excretory urography was performed on 72 cats. The kidneys and 2nd lumbar vertebral lengths were measured in centimeter and statistically analysed to find a correlations. There was a highly significant correlations between the length and width of the kidneys with the length of the second lumbar vertebral body.

**TS - 11**

**NON SELECTIVE RENAL ANGIOGRAPHY IN CATS  
AN EXPERIMENTAL STUDY**

*Dr. N.N. Balasubramanian Dr. M.S. Dewan Muthu Mohammed  
Dr. K.B.P. Raghavender and Dr. Justin Williams*

Department of Surgery, Madras Veterinary College  
Tamilnadu Veterinary and Animal Sciences University, Madras - 600 007

Twelve adult cats, weighing over 2 kgs. were given general

anaesthesia,. The left or right femoral artery was catheterized either with pediatric angiographic Catheter or intravenous Cannula No. 16 The catheter was anchored to the femoral artery by a ligature. The catheter was repeatedly flushed with heparinised saline, the contrast agent (5 to 10 ml) is injected rapidly & radiograph was taken when the injection is half way through. After the completion of the procedure the artery was ligated to arrest haemorrhage.

TS - 12

### A NOTE ON CEREBRAL ANGIOGRAPHY IN DOGS

*Dr. A.K. Srivastava; Dr. Rajendra Singh*

Officer I/C Canine Rabies Control, U.P. Lucknow

Director Animal Husbandry U.P. Lucknow

Dogs suspected either with neoplasia of brain or arterial occlusion, were subjected to cerebral Angiography. The external carotid artery and common carotid artery were ligated above and below the proposed site of catheterization after exposing the common carotid artery surgically through a ventral midline incision. A catheter was inserted in to the common carotid artery, threaded up to the region of the internal carotid and occipital arteries and secured. Conray-280 was injected rapidly at a dose rate of 0.4 ml. per kg. body weight. The radiograph obtained visualized clearly the arterial pattern.

## ANAESTHESIOLOGY SESSION - II

Chairman: *Dr. S.S. Misra*

Rapporteur: *Dr. S. Thilagar*

### AS - 1

#### A NEW COMBINATION ANAESTHESIA FOR DIAPHRAGMATIC HERNIORRHAPHY IN BUFFALOES

*K.I. Singh, V.K. Sobti, S.N. Sharma,  
N.S. Saini and P.S. Bansal*

Haloperidol in combination with chloralhydrate and halothane was used in 10 buffaloes suffering from diaphragmatic hernia. Before the start of surgery, 6% chloralhydrate was administered intravenously (250-350 ml). After 6-10 minutes of chloralhydrate administration, 15-20 ml of haloperidol (5mg/ml) was given intravenously. The animals were intubated and connected to the halothane anaesthesia apparatus. Salivation was negligible in all the animals. Muscle relaxation was excellent. Only one animal had the tendency of regurgitation. Recovery time was between 1-2 hours.

### AS - 2

#### EPIDURAL ANNESTHESIA IN CATTLE WITH 45% METHYL ALCOHOL.

*Suresh J. Baviskar and K.R. Patil*

Two hundred eighty one cases of She Buffaloes and cows with vaginal prolapse to reported. Maximum incidence was pre-partum vaginal prolaps in cows and post-partum vaginal prolaps in She Buffaloes. A mixture of 2 percent Xylocain 30 ml plus 2 ml of methyl alcohol (CH<sub>3</sub> OH) 45% is used. Eight milli litres of this mixture is injected epidurally to each animal treatment was repeated after 3 days in few cases if necessary. Complete clinical recovery was achieved in 95 percent of case suffering from prolapse of genitatia.

AS - 3

### **XYLAZINE ANAESTHESIA IN A TORTOISE-CASE REPORT**

*Suresh J. Baviskar and K.R. Patil*

A tortoise aged 6 months, weighing about 8 kg. was brought with the history that it had a fish hook anchored palate in hard. On physical examination, a sharp pointed object could be noticed. Two percent xylazine solution at the rate of 0.05 mg/kg was administered intramuscularly. Anaesthesia along with good muscular relaxation was obtained in 10 minutes after administration of xylazine. The fish hook was removed with artery forceps. Complete recovery was obtained after 2 hours.

AS - 4

### **CLINICAL EFFECTS OF TRIFLUPROMAZINE, DIAZEPAM, PENTAZOCINE AND MEDETOMIDINE IN GOATS : A COMPARATIVE STUDY**

*K. Pratap, Amar Pal and A.K. Sharma*

1. Scientist, 2. Scientist, 3. Scientist.  
Indian Veterinary Research Institute, Izatnagar, U.P.

Clinical effects of triflupromazine (1 mg/kg, i.m.), diazepam (1mg/kg, i.m.), pentazocine (3mg/kg, i.m.) and medetomidine (10mg/kg, i.m.) were compared in 12 goats divided into 4 groups (A,B,C and D). Heart rate (HR), respiration rate (RR), rectal temperature (RT), weak time (WT) down time (DT), jaw muscle relaxation, pin prick response, pedal reflex, response to noise and posture were recorded upto 90 minutes.

In group A animals, there was a transient increase in HR and RR, and no significant change in RT. Slight incoordination and mild analgesia was observed for 30 min., starting from 20 min. after the injection of triflupromazine. Diazepam administration (group B) did not affect HR and RR significantly, but slight reduction in RT was recorded in later stages. Very mild incoordination and sedation seen from 20 min. onwards for about 30-40 min. In group C, no marked change in HR, RR and RT was seen and had no sedation and analgesia. Whereas, medetomidine (group D) produced slight reduction in HR and marked fall in RR after 15 - 20 minutes. Weak time recorded was 2-5 min. and down time 10 - 15 min. Sedation and analgesia was moderate and persisted upto 75-90 minutes.

AS - 5

**MEDETOMIDINE AND PENTAZOCINE ANAESTHESIA IN GOATS :  
A CLINICAL STUDY**

***Amar Pal, K. Pratap and H.P. Aithal***

1. Scientist, 2. Scientist, 3. Scientist.

Indian Veterinary Research Institute, Izatnagar, U.P.

The anaesthetic effects of medetomidine (10mg/kg, i.m.) and pentazocine (3mg/kg, i.m.) alone and in combination were evaluated in healthy adult goats. Four trials were conducted with each drug and their combination. The parameters studied were heart rate (HR), respiration rate (RR), rectal temperature (RT), weak time (WT), down time (DT), jaw muscle relaxation, posture, pin prick, pedal reflex and response to noise.

Medetomidine produced slight fall in HR and marked reduction in RR after 15-20 min. of its administration. There was no significant change in R.T. WT was 2-5 min. and DT of 10-15 min. Moderate sedation and analgesia persisted upto 75-90 min. Pentazocine did not affect HR, RR and RT, and no appreciable sedation and analgesia were recorded. In animals where a combination of medetomidine and pentazocine was given, no change in RR was observed. Non significant fall in HR but a gradual reduction in RT were seen. Animals recorded a WT of 2-4 min. and DT of 5-7 min. Analgesia and sedation were very good and complete anaesthesia was also observed for

AS - 6

**CLINICAL EFFECTS OF EPIDURAL KETAMINE AND XYLAZINE IN  
GOATS - A PRELIMINARY STUDY**

***H.P. Aithal, Amar Pal and K. Pratap***

1. Scientist, 2. Scientist, 3. Scientist.

Indian Veterinary Research Institute, Izatnagar, U.P.

Adult goats were used to evaluate the effects of epidural ketamine (2.5 mg/kg), Xylazine (0.05mg/kg) and a combination of ketamine and xylazine (2.5mg/kg  $\pm$  0.05 mg/kg), in groups A, B and C respectively.

In animals of group A, respiratory rate (RR) should transient increase. Moderate incoordination and analgesia of hind quarters was recorded after 5 min. which remained for about 15 min. In group B, heart rate (HR) slightly depressed while RR showed marked depression. Mild incoordination and mild to moderate analgesia of hind quarters was observed upto 45 min. In group C, where both ketamine and xylazine were administered simultaneously, transient fall in HR was recorded. RT showed slight but gradual reduction. Weak time was / 1 min. and down time about 2 min. Severe incoordination and complete analgesia of hind quarters was observed for 45 min. Ketamine helped to potentiate the effects of xylazine and the combination of both at the above dose rate provided complete analgesia of hind quarters for more than 45 minutes.

AS - 7

### CLINICAL EVALUATION OF DETOMIDINE IN HORSES

*P.V. Parikh, S.K. Tiwari, Amresh Kumar and N.S. Jadon*

College of Veterinary Sciences,

G.B. Pant University of Agriculture & Technology, Pantnagar - 263 145 (U.P.)

Intramuscular administration of detomidine @ 50 µg/kg body weight and atropine sulphate @ 0.04 µg/kg body weight intramuscularly, produced good sedation/analgesia of about  $70.00 \pm 5.18$  minutes in horses. The onset of analgesia occurred in  $5.00 \pm 1.2$  minutes and complete recovery was seen in  $120.00 \pm 8.2$  minutes. Surgical procedure viz partial amputation of penis (1), suturing of large extensive cutaneous wound (2), repair of ventral hernia (1), clinical and radiographic examination (2), were performed during sedation/analgesia. Linear infiltration of local anaesthetic lignocaine hydrochloride 2% was done in animals undergoing surgical procedures.

Significant ( $p < 0.05$ ) increase in heart rate upto 30 minutes after detomidine administration was observed in all the horses. Respiratory rates and temperature though slightly decreased were not significantly ( $P > 0.05$ ) affected after detomidine administration. The drug was tolerated well. Recovery in all the cases was smooth and without any complications. It provided a good sedation and restraint for surgery in horses.

AS - 8

**COMBINATION OF DETOMIDINE AND KETAMINE IN CAT  
A CLINICAL STUDY**

**B. Sharma, Amresh Kumar, Harnam Singh**

Department of Surgery and Radiology

College of Veterinary Sciences

G.B. Pant University of Agricultur & Technology, Pantnagar - 263 145 (U.P.)

Combination of detomidine and ketamine was given intramuscularly at the following dose rates, in 12 cats divided into 4 groups of 3 animals each.

- Group I : @ detomidine 60 µg/kg + Ketamine 10 mg/kg body wt.  
Group II : @ detomidine 40 µg/kg + Ketamine 10 mg/kg body wt.  
Group III : @ detomidine 60 µg/kg + Ketamine 5 mg/kg body wt.  
Group IV : @ detomidine 40 µg/kg + Ketamine 5 mg/kg body wt.

Onset and duration of anaesthesia were dose dependent. The duration of anaesthesia varied from 30-80 minutes. Complete anaesthesia with good muscle relaxation and loss of corneal, palpebral and pedal reflexes were observed during anaesthesia in animals given ketamine @ 10 mg/kg body wt., whereas it was partially abolished in 5 mg/kg ketamine group. Induction and recovery were smooth in all the animals. It can be concluded that detomidine 40 µg/kg + Ketamine 10 mg/kg body wt. is suitable in cat as it produces good muscle relaxation and anaesthesia with minimal depression of vital parameters.

AS - 9

**XYLAZINE AND LIGNOCAINE FOR EPIDURAL ANALGESIA IN CANINES**

**S. Chaudhary, Harnam Singh, Amresh Kumar,**

**N.K. Kelawala and H.P. Singh**

Department of Surgery and Radiology

College of Veterinary Sciences

G.B. Pant University of Agricultur & Technology, Pantnagar - 263 145 (U.P.)

Epidural administration of xylazine @ 0.5 mg/kg or 1.0 mg/kg and

lignocaine 0.5 mg/kg or 1 mg/kg caused a dose dependent sedation and analgesia. Duration of anesthesia and recovery period were significantly longer in animals given epidural administration of xylazine @ 1.0 mg/kg and lignocaine 0.5 mg/kg or 1.0 mg/kg. A significant increase in heart rate and decrease in respiration rate and rectal temperature were seen in all the animals during maximum depth of anaesthesia. Cardiopulmonary changes included only a significant increase in minute volume between 15 and 45 minutes. Haematological changes included a decrease in total erythrocyte and leucocyte count, packed cell volume and haemoglobin concentration. Biochemical analysis revealed a significant rise in blood glucose, a slight increase in total protein and albumin. These changes were compensated within 24-48 hours.

AS - 10

### **A MIXTURE OF GLYCERYL GUAICOLATE, XYLAZINE AND KETAMINE FOR ANAESTHESIA IN DOGS.**

**Amresh Kumar and N.S. Jadon**

College of Veterinary Sciences

G.B. Pant University of Agriculture & Technology, Pantnagar - 263145 (U.P.)

A mixture of 0.25 mg xylazine, 1 mg ketamine hydrochloride and 50 mg glyceryl guaicolate in 5% solution of dextose @ 2.5 ml/kg in atropine @ 0.04 mg/kg premedicated dogs (6) produced good surgical anaesthesia lasting for 25-40 minutes. Recovery was smooth in 40 - 65 minutes. Heart rate was not significantly affected. Animals showed a slight hypoventilation. Mean arterial and central venous pressures slightly increased. Splenectomy (2), gastrotomy (3), cystotomy (2) and to end to end anastomosis of intestine (3) were successfully performed under GG + xylazine + Ketamine anaesthesia. Supplemental increments of this mixture @ 1 mg/kg body weight increased the duration of anaesthesia by 15 - 20 minutes.



AS - 11

### DETOMIDINE AS PREANAESTHETIC AGENT IN THIOPENTONE SODIUM

*N.H. Kelawala, Amresh Kumar  
S. Chaudhary and Harnam Singh*

Department of Surgery and radiology,  
College of veterinary Sciences

G.B. Pant University of Agriculture & Technology, Pantnagar - 263 145 (U.P.)

Pre-administration of atropine sulphate @ 0.04 mg/kg intramuscularly followed 5 minutes later by detomidine @ 50 mg or 100 µg/kg in dogs significantly reduced the dose of thiopentone and increased the duration of anaesthesia and complete recovery period. A significant increase in heart rate and decrease in respiration rate and rectal temperature was seen during surgical anaesthesia. Haematological changes included insignificant decrease in total erythrocyte and leucocyte counts, haemoglobin concentration and packed cell volume. A slight decrease in total erythrocyte and leucocyte counts, haemoglobin concentration and packed cell volume. A slight decrease in total serum proteins and albumin a rise in blood glucose level and serum transaminases (SGOT and SGPT) was observed in all the animals at 3-12 hours after thiopentone sodium. The induction was smooth and complete recovery occurred at  $105.7 \pm 4.33$  minutes. Detomidine @ 50 µg was found to be ideal as it caused comparatively less physiological effects.

AS - 12

### CAUDAL EPIDURAL ANALGESIA IN YAK (BOS GRUNNIENS)

*Kulbhushan, D.N. Sharma, A.C. Varshney  
M.S. Kanwar, S.K. Sharme & J.M. Nigam*

College of Veterinary and Animal Sciences  
Himachal Pradesh Krishi Vishvavidyalaya

Palampur (HP) - 176 062

Detailed dissection of the musculoskeletal system of the

sacrococcygeal region, conus medullaris and nerves emanating from the latter was conducted on six adult yaks. Unlike cattle the sacrum of yak had six segments and lay at a higher level caudally. The inter arcual space between the sacrococcygeal and first inter coccygeal joints were significant. The spinal cord terminated at S<sub>3</sub> vertebra. The dural cul-de-sac ended at S<sub>4</sub> vertebra. Beyond this level the duramater sheath extended as filum terminale, surrounded by the caudal nerves. They ran a straight caudad course in the vertebral canal. An epidural injection of 4 ml of 2% lignocaine hydrochloride at sacrococcygeal or first inter coccygeal space produced analgesia in the tail and perineal region within a lapse of 1 - 4 minutes. The duration of analgesia was 52 - 110 minutes. Complete return of sensation occurred between 54-111 minutes.

AS - 13

### BRACHIAL PLEXUS BLOCK IN YAK (BOS GRUNNIENS)

*Kulbhushan, A.C. Varshney, D.N. Sharma  
S.K. Sharma, M.S. Kanwar and J.M. Nigam*

College of Veterinary & Animal Sciences  
H.P. Krishi Vishvavidyalaya, Palampur (HP) - 176062

The nerves of the brachial plexus supplying the forelimb and part of the thoracic wall were dissected in 6 adult yaks of either sex. The plexus was formed by the union of the ventral branches of C<sub>6</sub>, C<sub>7</sub>, C<sub>8</sub>, T<sub>1</sub> and T<sub>2</sub> nerves. A significant difference was recorded in the root value of different nerves, as compared to cattle. A suitable site was determined to block all the nerves of the forelimb in one shot. A 12-15 cm long needle passed straight craniocaudally from the point of scapulohumeraj joint along its medial aspect reached into the axilla at the point of entry of the different nerves into the forelimb. About 40 ml of 2% solution of lignocaine hydrochloride deposited in the axilla produced complete desensitization and muscular flaccidity of the whole forelimb. The onset of the analgesia occurred between 12-17 minutes and duration of the analgesia was for 32-40 minutes. Complete return of sensation took place between 49-54 minutes.

**STUDIES ON VISCERAL BLOCKADE WITH LIDOCAINE  
IN BUFFALO CALVES**

*Dr. N. Rajendran, Dr. M.S. Dewan Muthu Mohammed*

Department of Obstetrics & Gynaecology, V.C. & R. I.

Namakkal - 637 002, Tamil Nadu

The study was conducted to evaluate the efficacy and clinical effects of local anaesthetic Lidocaine (0.25%) as visceral blockade agent on six nondiscript buffalo calves. The anaesthetic was administered @ 1 ml/kg. body weight intraperitoneally. In addition a linear infiltration of 5 - 7 ml of 2% Lidocaine was made at the proposed site of incision. The response to visceral pain after intraperitoneal administration of Lidocaine was evaluated clinically by performing rumenotomy. The efficacy of visceral blockade was determined by assessment of pain reflexes, degree of analgesia, muscle relaxation and behaviour of animal during and after rumenotomy. The efficacy of analgesia was excellent in four and good in two animals. Rumenotomy was successfully performed without any 'Visceral response to pain'. The recovery was smooth and uncomplicated in all the experimental animals.

## LARGE ANIMAL SURGERY SESSION - III

Guest Lecture : *Dr. P.O. George*

Chairman : *Dr. Harpal Singh*

Rapporteur : *Dr. T.N. Ganesh*

### LAS -1

#### RECTAL STENOSIS DUE TO PELVIC ABSCESS IN A JERSEY COW A CASE REPORT

*T. Madhava Rao, Makkena Srinu, O. Ramakrishna and G.V. Lakshmi Pathi*  
College of Veterinary Science, Tirupati (A.P)

A six year old Jersey cow was referred with a complaint of anorexia, tenesmus and absence of defaecation for the past few days. Per rectal examination of the animal revealed a large and deep seated fluctuating swelling towards the right lateral wall of the rectum at a distance of 10 cms. in front of the anus and extending anteriorly into the peritoneal cavity. Exploratory right flank laparotomy was performed to aid in differential diagnosis of the condition and confirmed as abscess. Possible routes of surgical drainage of abscess was discussed.

### LAS - 2

#### MULTIPLE WARTS IN A HOLSTEIN CALF - A CASE REPORT

*T. Madhava Rao, G.V. Lakshmi Pathi & O. Ramakrishna*  
College of Veterinary Science, Tirupati (A.P)

A six-month-old female H.F. calf was presented with warts numbering twenty which were located on head, neck, shoulders, elbows, thorax and flank region. Both pedunculated and sessile warts were present. Pedunculated warts were either ligated or surgically excised. The left-over warts were completely regressed between 8 - 12 weeks following removal of few warts.

LAS - 3

**CONGENITAL ANOMALY SYNDROME IN A MURRAH CALF  
A CASE REPORT**

*T. Madhava Rao, G.V. Lakshmipathi and Makkena Srinu*

College of Veterinary Science, Tirupati (A.P.)

A three day old, male Murrah calf was presented with a complaint of continuous straining, distended abdomen and not passing the meconium since birth due to anal atresia. The calf had double tail, rectal ampulla near at the ischeal tuberosity, monorchid cleft scrota, prominent teats and a skin fold (an anorchid scrotal fold) at the perineum at the usual site of external genitalia of the female. Micturition was normal through the penile urethra. The calf was otherwise normal. Emergency treatment included the surgical correction of anal atresia.

LAS - 4

**A QUANTITATIVE ANALYSIS OF SURGICAL CASES  
TREATED IN AN ORGANISED DAIRY FARM**

*S.K. Maiti, T.P. Parai & L.P. Nautiyal*

Division of LPR (C&B)

Indian Veterinary Research Institute

Izatnagar - 243122 (U.P.)

A total of 1050 cross-bred cows and 150 buffaloes were examined for the incidence of various surgical diseases from birth to the age they remained in the farm. The incidence of traumatic injury/wound was much higher in animals followed by lameness, teat and udder affections and then joint diseases. Incidence of abnormal growths like cyst, tumor, hygroma, haematoma, oedema were moderately high, where as occurrence of surgical maladies were very low. The percentage of surgical disorders more were in adult lactating cows than buffaloes and male animals. This may be due to higher population of adult female cow than buffaloes and male animals in the farm.

LAS - 5

### OCCURRENCE OF ETHMOTURBINATE CARCINOMA IN CROSSBRED COWS

*S.K. Maiti & T.P. Parai*

Division of LPR (C&B)

Indian Veterinary Research Institute

Izatnagar - 243122 (U.P.)

This study included ten crossbred dairy cows aged between 6-8 years with the history of respiratory distress, occasional bleeding from the nostril and later bulging of the eye ball. On examination of the nasal passage, no polyps or growth was observed. Auscultation of the chest did not reveal any abnormal lung sound. The animals gradually developed anorexia, dyspnoea, distress, anxiety with loud wheezing sound and ultimately died within 3-4 months after the onset of the symptoms. On postmortem examination of these cases, the presence of various sizes of tumors were present. The tumors in all the animals were located in ethmo-turbinat region with exophthalmus being a constant feature. Histologically the tumor showed characteristics of adeno carcinoma.

LAS - 6

### PAROTID PTYLOCELE IN A CROSS-BRED COW

*S.K. Maiti and T.P. Parai*

Division of LPR (Cattle & Buffalo)

Indian Veterinary Research Institute

Izatnagar-243122 (U.P.)

#### ABSTRACT

A 5 year old corss-bred cow (Jersey x Friesian x Hariana No. 57 A2) was presented with a pronounced enlargement on the left cheek. The animal had difficulty in mastication. Exploratory puncture confirmed the case as an acquired parotid ptylocele.

Under local analgesia the mucocele was incised, contents were drained, and the lining mucosa was denuded. The cavity was irrigated with betadine solution and smeared with ground copper sulphate powder. Strepto-penicillin (2.5 gm.) was administered for 5 consecutive days. On the 5th day, the devitalized mucocele was easily debrided, leaving healthy granulation tissue. The wound was dressed with magsulphglycerine-furacin ointment once in 3 days and in 4 dressings, the wound healed spontaneously and restored the animal's masticatory efficiency to normal.

LAS - 7

### **DYSTOCIA DUE TO FOETAL LIPOMATOSIS IN A SHE BUFFALOE**

*Dilipkumar, D. Chandra Shaker Celly, Muralikrishna  
B.V. Ramkrishna & Mondhar, P. Dyaberi  
Veterinary College, Bidar, Kamataka*

Dystocia caused by excessive size of parts of the foetus may be due to rare instances of hypertrophy of any gland (Roberts, 1971) and presence of tumour. Abdominal tumour include mesothelioma of the peritoneum, sublumbar lipoma and a retroperitoneal chondrosarcoma in bovine foetuses. The present report records a rare instance of lipomatosis in a foetus causing dystocia in a she buffaloe.

LAS - 8

### **SURGICAL MANAGEMENT OF THELAZIA LACRIMALIS IN ANTERIOR CHAMBER OF A HORSE**

*V.M. Salunke, A.P. Bhokre, V.S. Panchbhai and L.B. Sarkate  
College of Veterinary & Animal Sciences, MAU, Parbhani*

A case of "Worm in anterior chamber of eye" in 6 years old Kathewadi horse was recorded. A successful surgical treatment was employed to remove the worm from the anterior chamber. The worm was identified as *Thelezia lacrimalis*.

LAS - 9

**SURGICAL MANAGEMENT OF PYELONEPHRITIS IN A COW CALF  
A CASE REPORT**

*S.M.Usturge, P.T. Jadhao, V.M. Saiunke*  
College of Veterinary & Animal Sciences, Udgir

A female cow-calf aged 2 months was referred as a case of tumour in the abdomen by the local veterinarian. The case was examined and tentatively diagnosed as enlarged kidney and decided to operate for confirmation by exploratory laparotomy. The case was diagnosed as unilateral pyelonephritis with enlargement of affected kidney with pus. Unilateral nephrectomy, under sedation and local anaesthesia through right flank approach has been described, with uneventful recovery and good success. The calf survived on single kidney with subsequent dramatic improvement in the good growth rate.

LAS - 10

**STUDIES ON HORN CANCER IN MARATHWADA REGION  
(MAHARASHTRA)**

*Dr. V.D. Jahagirdar*  
Assistant Director of Animal Husbandry  
Govt. Veterinary Polyclinic, Nanded - (M.S.)

Investigations were carried out on 29 clinical cases of horn Cancer at different stages in Parbhani and Nanded District of Marathwada Region. The prevalence was highest in bullocks (26) followed by buffalo (2) and in a cow. The breed involvement was not specific and 19 cases were observed in non-discript followed by Deoni(3) and Red Kandhari (2), Murrah (2), one each in Haryana, Gir and HF cross. Average age of affected animal was 11.5 years. Involvement of left horn was seen in 16 cases and right horn in 12 cases while one case of bilateral horn cancer was recorded. First stage cancer was observed in 10 animals, second stage in 9 cases and 10 cases of 3rd stage cancer were found.

Two groups (A & B) were formed for treatment regime. In group A, first stage of horn Cancer Cases were included where amputation of horn followed by 10 ml.



Autovaccine was injected subcutaneously on 0, 10 and 20 days after operation. In group B Second and third stages of Cancer Cases were involved where amputation of horn, autovaccine and Levamisole (2.5 mg/kg) body weight was administered on the same days as in group A. Of the total 10 Cases from group A, only one Case showed recurrence while out of 19 cases of group B, two cases showed recurrence of Cancer after 6 months. The recurrence was observed in third stage Cases only.

LAS - 11

### **TORSION OF THE GRAVID UTERUS AND CAESAROTOMY IN BOVINE - A REPORT OF 72 CLINICAL CASES**

*S.P. Sharma, K.B.P. Agrawal & D.P. Singh*

Department of Surgery & Radiology  
Bihar Veterinary College, Patna - 14.

72 Clinical cases of uterine torsion in bovine were reported during last fifteen years in which laparohysterotomy was performed. Among them, 39 exotic Crossbred, 1 Tharparkar and 32 Indian buffalo cows exhibited difficult parturition either at the time of parturition or few days/weeks after the end of gestation. Post cervical uterine torsion was marked in almost all animals except a Crossbred cow in which precervical torsion was detected. According to the degree of torsion and foetal position, the right flank, the right paramedian and mid way inbetween the right flank and milk vein were selected as laparotomy sites.

LAS - 12

### **DIVERSIFIED SURGICAL APPROACHES FOR REPAIR OF DIA- PHRAGMATIC/RETICULAR LESIONS IN BUFFALOES**

*Shiv Kumar Sharma, Krishnamurthy, D., Peshin P.K.,  
Chawla, S.K., Tayal, R. and Moulvi, B.A.*

Department of Veterinary Surgery & Radiology,  
CCS Haryana Agricultural University, Hisar - 125 004

A total of sixty clinical cases, suffering from diaphragmatic hernia (54 cases),

diaphragmatic abscess alone (2 cases), diaphragmatic hernia besides a reticular abscess (1 case) were treated by different surgical techniques. Animals with diaphragmatic hernia underwent herniorrhaphy by:

- i) Lateral abdominal approach (15 cases);
- ii) Sulpine abdominal approach (25 cases) and
- iii) Lateral thoracic approach (14 cases).

The results of this study emphasize that every technique of herniorrhaphy has its own merits and demerits. The outcome of the case mainly depends on the clinical condition of the animal and measures undertaken before, during and after surgery to make the patient safe to withstand the stress of two-stage surgery. However, for herniorrhaphy, lateral approaches were found to be better due to absence of complications like cardiovascular embarrassment in animals than in supine position. Further more drainage of raticular/diaphragmatic abscess as well as repair of reticular fistula was found more convenient through lateral abdominal approach.

LAS - 13

#### ILEO-CAECAL INTUSSUSCEPTION IN TWO CROSS BRED COWS CASE REPORTS

*V. Ramaswamy, M. Mohankumar and A. Venkatachalam*

University Training and Research Centre, Erode  
Veterinary Asst. Surgeon, Kasipalayam, Periyar District.

Two cases of Jersey cross bred pregnant cows aged about 3 years were presented with the symptoms of off-feed and total cessation of defaecation. On rectal examination, tarry coloured, pasty and scanty foul smelling dung materials was removed. A hard lumpy mass was felt on the right side of the abdominal cavity in both the cases was performed.

Right mid flank laparotomy under regional anaesthesia. Intussuception was noticed at the ileo-caecal junction, with extensive necrosis. Enterectomy and enteroanastomosis were performed in both the cases. The laparotomy incision was closed by routine manner. The animals were treated with fluids and antibiotics post operatively. The propable etiology of the condition, clinical symptoms and treatment are discussed.

LAS - 14

### ADENOCARCINOMA OF A LOWER JAW IN A GRADED MURRAH SHE BUFFALO - A CASE REPORT

*Dr. K. Bhaskar Singh, M.V.Sc.*

Asst. Director (A.H.)

Veterinary Polyclinic, Guntur

An eight year old graded Murrah she buffalo was reported with a large, firm and apparently round tumour on right side of the lower jaw, which was developing gradually for the last six months.

Under pre-medication area bilateral mandibular nerve block, the tumourous mass was dissected. Bleeding was arrested by ligation. The operated part was cleaned and povidine iodine was applied. An antibiotic umbrella with streptopencillin, 2.5g per day for five days, was given. The tumour was confirmed as **ADENOCARCINOMA**. The recurrence of the tumour was not observed for six months.

LAS - 15

### THYMOMA AND THYMECTOMY IN DEONI BULLOCK

*B.V. Shivaprakash and V. Ramkrishna*

Veterinary College, Bidar, Kamataka.

An aged Deoni bullock was presented with a huge bilateral swelling on either side of the neck. It extended from prescapular to ventral cervical region dorsoventrally, and upto thoracic inlet medially. Blood picture revealed marked eosinophilia, lymphopenia and reduced haemoglobin level. The animal was sedated, locally infiltrated with an analgesic and the growths were surgically excised. The growths were greyish white and bilobed. The left and right lobe weighed 3 kg and 1.60 kg respectively.

LAS - 16

### CLINICAL REPORT ON CAESAREAN SECTION IN BUFFALOES

*Dr. K. Krishnamurthy, P. Radhakrishna Murthy*

*A. Madhusudana Rao, A. Sivaji*

Veterinary polyclinic, Tanuku, West Godavari District (A.P.)

Sixty two caesarean operations, 4 in cows and 58 in she buffaloes, were conducted during the period from April 1990 to August 1994 at Veterinary Polyclinic, Tanuku, West Godavari District, A.P. Out of 58 buffaloes, operation was conducted in 54 animals due to uterine torsion and in 4 animals due to other causes.

The torsion was more common in pluriparous animals of 3rd calving or more. The degree of torsion was less than  $270^\circ$  in 69% (37) of cases and 31% (17) of cases showed more than  $270^\circ$  of torsion. The torsion towards right side was observed in all the cases. Pre and post cervical torsions were noticed in 3 and 51 animals, respectively. In 38 cases, the torsion was noticed during the full term of gestation and in 16 cases it was around 8 months of gestation. Caesarian was conducted through left paramedian site under sedation and local infiltration analgesia. Out of 58 operations, only one foetus was alive and the remaining foetuses were dead. A total of 36 animals were discharged as fully recovered constituting 62% of the operated animals. The success rate of the cases operated on 24, 48, 72 and 96 hours following dystocia was 100%, 86.4%, 22.2% and 14.3% respectively.

LAS - 17

### ABOMASAL HERNIA IN HEIFER CALF - A CASE REPORT

*R.V. Suresh Kumar & O. Ramakrishna*

College of Veterinary Science, Tirupati (A.P.)

A crossbred heifer calf was brought with a history of swelling on right ventral aspect of abdomen located between 9-11 ribs. Clinical examination and pH of fluid from swelling suggested abomasal herniation. Herniorraphy and abomasopexy was done. The animal made uneventful recovery.

## CRYOTHERAPY FOR INTERDIGITAL TUMORS IN BOVINES

*M.S.Vasanth and S.M. Jayadevappa*

Veterinary College, Bangalore 560 024

Three clinical cases of bilateral hind limb interdigital tumour in bovines sedated with 0.2 mg/kg xylazine, IM local anesthesia was achieved by Intravenous regional anesthesia of the limb using 15 to 20 ml of 2% lignocaine. The growth was removed and the remaining tissue was subjected to cryosurgery by application of cylindrical S.S. rods (10 cm long, 1 cm diameter) or cotton swabs, preimmersed in liquid nitrogen. The rods were more effective and easy to handle. There was minimal bleeding and recovery was uneventful with routine wound dressing.

**POSTER SESSION - IV**

**PS - 1**

**BASAL CELL CARCINOMA IN A DOG - A CASE REPORT**

*T. Madhava Rao, P.K. Sreeraman & G.V. Lakshmi pathi*

College of Veterinary Science, Tirupati (A.P.)

**PS - 2**

**CONGENITAL ANOMALY SYNDROME IN A MURRAH CALF  
A RADIOGRAPHIC VIEW**

*T. Madhava Rao, G.V. Lakshmi pathi and Makkena Srinu*

College of Veterinary Science, Tirupati (A.P)

**PS - 3**

**TUMOUR OF THE TAIL IN A DOG - A CASE REPORT**

*T. Madhava Rao and V. Girishkumar*

College of Veterinary Science, Tirupati (A.P)

**PS - 4**

**OSTEOSARCOMA OF THE DISTAL RADIUS IN A GREAT DANE**

*T. Madhava Rao, V. Girish Kumar and K.B.P. Raghavender*

College of Veterinary Science, Rajendranagar, Hyderabad - 500 030 (A.P)

**PS - 5**

**FIBROMA IN A JERSEY COW : A CASE REPORT**

*Makkena Sreenu, T. Madhava Rao and G.V. Lakshmi pathi*

College of Veterinary Science, Tirupati (A.P)

PS - 6

**EXCISION PLUS CRYOTHERAPY OF THE "CANCER EYE" IN A  
HOLSTEIN COW - A CASE REPORT**

*T. Madhava Rao, G.V. Lakshmipathi & O. Ramakrishna*  
College of Veterinary Science, Tirupati (A.P)

PS - 7

**FIBROLEIOMYOMA OF UTERUS IN A BITCH**

*R.V. Suresh Kumar, O. Ramakrishna and Md. Riazuddin*  
College of Veterinary Science, Tirupati (A.P)

PS - 8

**STERNOPHAGUS OR CONJOINED TWINS IN A BUFFALO**

*K.S. Naidu, Md. Riazuddin and R.V. Suresh Kumar*  
College of Veterinary Science, Tirupati (A.P)

PS - 9

**MENINGOCOELE IN A DAY OLD CALF**

*R.V. Suresh Kumar and Md. Riazuddin*  
College of Veterinary Science, Tirupati (A.P)

PS - 10

**HEMIMYELIA IN A CALF**

*K.S. Naidu, Md. Riazuddin*  
College of Veterinary Science, Tirupati (A.P)

**SMALL ANIMAL SURGERY SESSION - V**

Chairman : *Dr. S.M. Jayadevappa*

Rapporteur: *Dr. I.V. Mogha*

SAS - 1

**SURGICAL TREATMENT OF ASCITES IN DOG**

*K. R. Patil and Suresh J. Baviskar*

Veterinary Polyclinic, Dhule

Two female alsation bitches, aged 6 years each, and one 7 years old male Doberman dog suffering from ascites were given general anaesthesia. The incision was made on an oblique line commencing from in front of the pubis to lined alba for drainage. All cases recovered uneventfully.

SAS - 2

**CLINICAL TRIAL ON THE USE OF MODIFIED GELATIN FILM FOR WOUND HEALING IN DOGS**

*T. N. Ganesh, T.P. Sastry*

*Dr. B. Ramesh Kumar and N.N. Balasubramanian*

Madras Veterinary College, Madras.

Modified gelatin film prepared at Central Leather Research Institute, Madras, was utilised on six dogs with various types of wounds. Wound healing was evaluated based on clinical observation, haematological studies and histopathological studies. Modified gelatin film hastened the healing process without producing any abnormal tissue reaction.



SAS - 3

**SURGICAL RESECTION OF LATERAL CARTILAGE FOR CHRONIC  
OTITIS EXTERNA IN DOGS - A CLINICAL STUDY**

*T.N. Ganesh and N.N. Balasubramanian*  
Madras Veterinary College, Madras.

Twelve dogs of different breeds and age groups, with Chronic Otitis externa were subjected to surgical resection of the lateral cartilage and ventral grafting (Zepp procedure). Ear swabs were cultured preoperatively and the dogs were treated with specific antibiotics post surgically. Ultra violet ray exposure of the operated site for 7 days hastened recovery and the operated wound healed by 10 to 14 days. In 9 dogs the recovery was complete. In 2 dogs there was recurrence of infection. One animal died of nephritis during the post-operative period. It was concluded that surgical management by Zepp technique with post-operative U.V. ray exposure for the wound can be successfully adopted for chronic otitis in Dogs.

SAS - 4

**SURGICAL MANAGEMENT OF AN UNUSUALLY LARGE SIZED  
VENERAL TUMOUR IN A DOG**

*T.N. Ganesh, S. Ayyappan*  
*W.P. Archibald David and N.N. Balasubramanian*  
Madras Veterinary College, Madras

A nondescript 5 year old male dog was presented with a tumor involving the penis and sheath. Under general anaesthesia ablation of the penis and scrotum followed by scrotal urethrostomy was carried-out. The tumour weighed 950 grams. The animal recovered uneventfully. Histopathological examination of the tumour confirmed it as venereal granuloma.

SAS - 5

### COMBINATION CHEMOTHERAPY IN CANINE TRANSMISSIBLE VENEREAL TUMOR

*M. Hoque, A.M. Pawde and G.R. Singh*

Indian Veterinary Research Institute, Izatnagar, U.P.

A trial of a combination chemotherapy consisting of vincristine, cyclophosphamide, and methotrexate was undertaken for the treatment of canine transmissible venereal tumor (CTVT) in ten pet dogs. The dosage regimen consisted of vincristine 0.025 mg/kg body wt. IV weekly, cyclophosphamide 50 mg/m<sup>2</sup> of body surface orally on odd days.

All the dogs had 100% remission with no tumor recurrence for upto one year follow-up period. three dogs showed signs of transient side effects like loss of appetite, vomiting, diarrhoea, neutropenia and alopecia. The results indicate that combination chemotherapy is an effective modality for the treatment of CTVT in dogs.

SAS - 6

### A NOTE ON BLADDER CAPACITY FOLLOWING AUGMENTATION CYSTOPLASTY IN CNINES

*V. Haragopal, O. Ramakrishna and R.V. Suresh Kumar*

College of Veterinary Science, Tirupati - 517 502 (A.P.)

Bladder capacity was measured in 72 animals of either sex following augmentation cystoplasty with ileum with intact blood supply, fascia lata and allografts. The bladder capacity was greatly reduced in all the groups immediately after operation, however improved during the observation period. It was rated good in ileal augmented group, fair in preserved allografts and satisfactory with fascia lata grafted group.

SAS - 7

**STUDIES ON BURSTING PRESSURE OF CANINE URINARY  
BIADDER FOLLOWING AUGMENTATION CYSTOPLASTY**

*V. Haragopal, O. Ramakrishna and R.V. Suresh Kumar*

College of Veterinary Science, Tirupati - 517 502 (A.P.)

The bursting pressures of augmented bladders with ileal, fascia lata and preserved homologous bladder grafts were studied. The values greatly reduced in early post operative period but gradually increased with passage of time. The study also revealed that bursting pressure was more in fascia lata group less in preserved bladder group and least in ileal bladders.

SAS - 8

**HISTOLOGICAL CHANGES IN ILEAL MUCOUS MEMBRANE FOL-  
LOWING AUGMENTATION CYSTOPLASTY IN CANINES**

*V. Haragopal, R.V. Suresh Kumar, O. Ramakrishna, and Nisar Ahmed*

College of Veterinary Science, Tirupati - 517 502 (A.P.)

Augmentation ileocystoplasty was performed in 24 mongrel dogs of either sex to study histological changes in ileal mucous membrane at different periods of observation. The study revealed hyperplasis of villi along with goblet cells at the augmented site in early post operative days. The ileal mucous memberane showed transformation to uroepithelium at 30th post-operative day and the process beame more clear by 60th postoperative day.

SAS -9

**STUDIES ON RECONSTRUCTION OF  
RUPTURED ANTERIOR CRUCIATE LIGAMENTS IN DOGS**

*M. Kanthamma and O. Ramakrishna*

Anterior cruciate ligament was ruptured following lateral para pateller

approach. The ruptured ligament was reconstructed either with modified fascia lata strip or by using a part of patellar tendon. The results were compared with control animals when compared to control animals, the treated groups showed early normal functional limb usage by 30th post operative day. Revascularization and collagen formation was found to be earlier in patellar tendon grafts when compared to fascia late graft.

SAS - 10

### CYSTIC CALCULI IN BITCH - A REPORT OF TWO CASES

*Dr. V. Gireesh Kumar and K.B.P. Raghavender*

Department of Surgery, College of Veterinary Science  
Hyderabad - 500 030.

Two bitches aged 5 years and 8 years were presented with a history of dysurea and haematuria. Palpation of the abdomen did not reveal and abnormality. radiographic examination revealed the presence of large single cystic calculi in each of the dogs. Intravenous pyelography was performed in one of them to ruleout renal calculi. Cystotomy was performed in both the cases and the calculi were removed. The animals made uneventful recovery.

SAS - 11

### INGUINAL HERNIA IN A BITCH - A CASE REPORT

*V. Gireesh Kumar and K.B.P. Raghavender*

Department of Surgery, College of Veterinary Science  
Hyderabad - 500 030.

A 5 year old Samoyed bitch was presented with unilateral swelling in the inguinal region. Palpation of the mass revealed that it was a reducible inguinal hernia. On surgical incision, the hernial contents were found to be intestines, omentum, urinary bladder and non-gravid uterus. Ovarohysterectomy was performed through the same incision and the hernial contents were reduced. Herniorrhaphy was performed resulting in uneventful recovery.

SAS - 12

**SURGICAL MANAGEMENT OF URETHRAL CALCULI IN A DOG  
A CASE REPORT**

*P.T. Jahao, S.M. Usturge, N.M. Markandeya  
R.L. Dhoble and V.M. Salunke*  
College of Veterinary & Animal Science, UDGIR

A case of obstructive urolithiasis in a one year male dog was reported. After locating the site of obstruction in penile urethra at post scrotal region the dog was surgically treated under general anaesthesia for urethrotomy to remove an irregularly shaped urolith causing complete obstruction.

SAS - 13

**ACUPUNCTURE THERPY FOR POSTERIOR PARESIS IN SMALL ANIMALS**

*Dr. G.V. Lakshmipathi*  
College of Veterinary Science, TIRUPATI (A.P.)

The use of Acupuncture therapy for treating cases of posterier paresis in small pet animals (dogs and cats) which were refractory to the conventional therapeutic regimen is discribed. Acupuncture points corresponding to the meridians of Urinary Bladder (B167 ZHIYIN), Gall Bladder (GB 34 - YANGLING QUAN), Triple Warmer (TW 8 SANYANGLUO), Stamoch (St 36 TSU-SAN-LI), Spleen (Sp 6 SANYINJIAO) and Governor vessel point at the tip of the tail were stimulated either elictronically or manually . This was followed by acupoint injections. The location of the acupuncture points are discribed. The spectacular recovery of these animals and the beneficial effects of acupuncture therpy are discussed.

SAS - 14

**CONGENITAL ESOPHAGEAL STRICTURE IN A GERMAN SHEPHERD PUP**

*S.K. Pandey, V.P. Chandrapuria and M.K. Bharagava*  
College of Veterinary Science and A.H., Jabalpur - 482 001 (M.P.)

A four weeks old German Shepherd male pup had a history of

regurgitations of food since birth. Animal did pass the faeces only twice since birth. The pup was debilitated. Glucose saline 5% @ 25 ml was given intravenously several times. Positive contrast radiography with barium meal under diazepam (10 mg I.M.), showed retention of barium at a definite point in the thoracic esophagus. No. radio-opaque body could be located. However, contrast radiography revealed dilation of esophagus cranial to the point of retention. The pup died at the age of 32 days. Autopsy revealed significantly abnormal dilatation of esophagus measuring 6.8 cms at cervical and 12 cms at thoracic region. The diameter at the point of stricture was only 0.5 cm.

SAS - 15

### **ECTOPIC PREGNANCY IN A BITCH - A CASE REPORT**

*L. Ranganath, S.M. Jayadevappa and B.N. Ranganath*

Department of Surgery, Veterinary College, U.A.S., Bangalore.

A nine year old Dachshund entire female was presented with a history of anorexia and digestive disturbances. On Clinical and radiological examination it was diagnosed as mummified foetus. Exploratory laparotomy revealed it to be secondary extra uterine pregnancy. The extra uterine foetus was removed. Animal had uneventful recovery.

SAS - 16

### **INTUSSUSCEPTION DUE TO MASTOCYTOMA IN A DOBERMAN BITCH**

*V.D. Aher, V.S. Panchbhai, S.D. Moregaonkar and V.M. Solunke*

Marathwada Agricultural University, Parbhani - 432 402 (Maharashtra)

A 2 1/2 year old Doberman bitch was referred with a history of Vomition, diarrhoea and abdominal pain followed by constipation since past 10 days. Abdominal palpation revealed a hard tennis ball sized mass. Plain radiograph of abdomen revealed presence of hard nodular mass. Mid line laparotomy was performed and the seat of obstruction was exteriorised. After incising the intestine over the obstruction, a tumorous mass was observed along with telescoping of intestine. The part of intestine was resected along with the growth.

End to end anastomosis was carried out by employing cushing and lembert sutures. The laparotomy wound was closed in routine manner. The bitch showed uneventful recovery. Histopathology of tumor mass revealed it to be mastocytoma.

SAS - 17

### RECTOURETHRAL FISTULA IN A MALE KID - A CASE REPORT

*R.W. Ashturkar; V.D. Aher and G.D. Muley*

Veterinary Dispensary, Kalamnuri

Dist. Parbhani 431 702 (M.S.)

A 48 hour old male kid was presented with a history of passing faeces and urine through the urethral opening. On careful examination, atresia ani et recti with rectourethral fistula was noticed. There was a pouch anterior to scrotum and on pressing it the kid was passing pasty feces through urethra.

SAS - 18

### INGUINAL HERNIA IN A DOG

*S. Thilagar, N.N. Balasubramanian, R. Jeyaprakash*

Madras Veterinary College

Tamil Nadu veterinary and Animal Science University

Madras 600 007

A 9 year old Lhasa Apso dog was referred with a small swelling in the inguinal region. The swelling was palpable and reduceable. The case was diagnosed as indirect inguinal hernia by palpating the inguinal hernial ring. Herniorrhaphy was performed under general anaesthesia. Hernial ring was sutured with two layer of closure by allowing room for the passage of the emerging spermatic cord and external pudic vessel. Skin was closed in a routine manner.

SAS - 19

**CONGENITAL ABNORMALITY INVOLVING LOWER GASTRO  
INTESTINAL TRACT OF SHEEP AND GOATS  
IN THE NAMAKKAL REGION OF TAMIL NADU**

*N. Arul Jothi, K. Ameerjan, D. Abraham Manickarajan*

Veterinary College and Research Institute

Namakkal, Tamil Nadu.

Twenty five cases of congenital abnormality involving the lower gastrointestinal tract of 11 sheep and 14 goats was reported during 1992-1994. The maximum incidence was observed in males than females. Out of the 8 male Kids 6 were found to be having atresia ani and the other two were having atresia ani with rectourethral fistula. Among the six female kids, two were having atresia ani alone, while the remaining four had atresia ani with rectovaginal fistula. In case of sheep, 7 out of 8 Ramlambs had atresia ani and the other had atresia ani with rectourethral fistula. All 3 Ewelambs had atresia ani with rectovaginal fistula. The incidence of atresia ani was high in males (13 cases) while females showed highest record of atresia ani with rectovaginal fistula (7 cases).

SAS - 20

**PERINEAL HERNIORRHAPHY IN A DOG - A CASE REPORT**

*M. Narasimha Rao & T. Bhaskar Rao*

Veterinary Polyclinic, Kakinada (A.P)

An eight year old male Dachshund dog was presented to polyclinic with a history of swelling on the right side of anus and difficulty in defecation. Clinical examination suggested perineal hernia. Herniorrhaphy was performed under general anaesthesia by reducing the intestinal contents. The dog made an uneventful recovery.



SAS - 21

### LEIOMYOMA OF UTERUS IN A BITCH - A CASE REPORT

*R.V. Suresh Kumar, O.Ramakrishna and P.K. Sreeraman*

College of Veterinary Science, Tirupati (A.P)

A nine year old pomeranian bitch was presented with a history of prolonged gestation and distended abdomen. A hard mass was felt on palpation. Exploratory laparotomy revealed hard mass in uterine body. The uterus was removed surgically. The bitch made an uneventful recovery. Histological examination of the mass revealed it to be a Leiomyoma Uteri which is rare in bitch.

SAS - 22

### CLINICAL EFFICACY OF CRYOSURGERY FOR ANAL FISTULA IN CANINES

*M.S. Vasanth and S.M. Jayadevappa*

Veterinary College, Bangalore - 560 024.

Four clinical cases of anal fistulation in canines were sedated with Triflupromazine hcl 1 mg/kg body weight I/V. The fistulous wounds were subjected to cryotherapy using cryoprobes cooled by nitrous oxide. Treatment was repeated at weekly intervals until recovery. Three out of four cases showed complete recovery by the end of three weeks. The fourth case had of constipation and the wound did not completely heal by the end of 10 weeks of study.

**Experimental Surgery Session - vi**

Chairman : Dr. A.P. Bhokrae

Rapporteur: Dr. M.S. Vasanth

ES - 1

**EFFECT OF ELECTRICAL STIMULATION IN PARAPLEGIC RUMINANTS  
AN EXPERIMENTAL STUDY**

*K.R. Patil and Suresh J. Baviskar*

Veterinary Polyclinic, Dhule

Electrical stimulation was produced in ruminants by using a spark plug of Rajdoot motor cycle which is having current of 6 volt (A.C.) to the paraplegic animals. Studies were conducted in ninety-seven animals including 49 cows and 48 she buffaloes to determine the response of electrical stimulation. Rupture of spinal cord and dislocation of vertebrae (28.96%), complication of ephemeral fever (19.58%), downer cow syndrome (6.18%), complication of milk fever (28.96%) and pre-parturient paralysis (16.94%) were the major causes leading to paraplegia in these cases. The percentage of recovery was 89% in complication of ephemeral fever, 82.54% in complication of milk fever, 66.66% in Downer cow syndrome and 68.75% in pre-parturient paralysis on the third day of treatment. Remaining cases could not respond to treatment.

ES - 2

**STUDIES ON EXPERIMENTALLY INDUCED INTESTINAL OBSTRUCTION IN  
BUFFALO CALVES**

*V.S. Panchbhai and K.G. Shelke*

College of Veterinary and Animal Sciences  
MAU, Parbhani

Intestinal obstruction was induced for 48 hours in 18 healthy non descript buffalo calves of 1 to 1 1/2 years of age. The animals were divided into 3 groups.

Animals from group - I, kept as untreated control, succumbed during the course of observation with marked symptoms of intestinal obstruction and peritonitis along with significant haemoconcentration, neutrophilia & lymphocytopenia. BUN, Glucose and Creatine were significantly increased while Potassium, Sodium and Chloride levels were decreased. Animals from group-II, which were treated with fluid therapy and oxytetracycline, recovered from malady in 96 hours. Animals from group-III were treated with fluid therapy and ampicillin. Three animals succumbed and three recovered. Cultural and sensitivity pattern of peritoneal fluid in group -III revealed presence of E-Coli, Proteus and Staphylococcus organisms which were resistant to Ampicillin and were sensitive to Chloramphenicol and Gentamycin.

ES - 3

### MANAGEMENT OF INFECTED THIRD DEGREE THERMAL INJURIES BY SKIN PUNCH TRANSPLANTATION

*P.V. Parikh, Amresh Kumar, S.K. Tiwari and V.D. Sharma*

Department of Surgery and Radiology  
College of Veterinary Sciences, Pantnagar

Eighteen full thickness injuries, three in each calf of 4x3 cm size, were created on dorsolumbar region using red hot iron in six buffalo calves of 12-18 months old under epidural detomidine 60 ug/kg sedation. Bacteriological examination of wound exudate on 4th day revealed mixed bacterial infection predominated by Pseudomonas. Subsequently these wounds were treated with local and parenteral administration of gentamicin for five days. Escharotomy was done in all these wounds on 10th post-burn day. Autoskin punch grafting of two wounds was done in each buffalo calf, whereas third wound was treated with gentamicin locally. Complete healing with sparse hair growth and pigmentation was seen within 20 days of grafting compared to control, which took about 40 days for healing. The healed tissue of gentamicin treated wound remained devoid of any hair growth and pigmentation.

ES - 4

### EFFICACY OF DIALYSING FLUID IN CONTINUOUS METHOD OF PERITONEAL DIALYSIS URAEMIC CALVES

*J.N. Mohanty, V.S. Bose, A.K. Ray and S.K. Sahoo*

Department of Surgery  
Orissa Veterinary College, Bhubaneswar

Uremia was created through post scrotal urethral ligation in nine calves divided into three groups. Continuous method of peritoneal dialysis was carried out, 72 hours after urethral obstruction, for two hours maintaining a reserve volume of 30 ml. per Kg. body weight with an inflow and drainage rate of 80 ml per minute. Normal saline, 5% dextrose saline and 10% dextrose saline were used as dialysing fluids in group I, II & III respectively.

Biochemical parameters of blood were recorded prior to urethral ligation during the course of peritoneal dialysis and also the changes in the composition of the dialysate were studied. Five percent dextrose saline as dialysing fluid was found to be more suitable in continuous type of dialysis.

ES - 5

### EVALUATION OF CRYOSUPER VE-1 AND CRYOSUPER VE-4 CRYOSURGICAL UNITS

*K.B.P. Raghavender, N.N. Balasubramanian,  
Archibald David and P.H. Tank*

The efficacy of two cryosurgical units, i.e., cryosuper VE-1 and Cryosuper VE-4 working on nitrous oxide (N<sub>2</sub>O) or carbon dioxide (CO<sub>2</sub>) were evaluated based on the measurement of minimum probe-tip temperature. cryosuper VE-1 produced a minimum probe-tip temperature of -80°C within 40 seconds with N<sub>2</sub>O and -70°C in 50 seconds using CO<sub>2</sub>. On the other hand, Cryosuper VE-4 produced a minimal

probe-tip temperature of  $-55^{\circ}\text{C}$  in 30 seconds and a minimum sub-cutaneous temperature of  $-40^{\circ}\text{C}$  in 50 seconds, when  $\text{NO}_2$  was used as a cryogen. By using  $\text{CO}_2$  a minimum probe-tip temperature of  $-40^{\circ}\text{C}$  in 60 seconds was achieved. It was concluded that VE-1 was useful for ophthalmic use and VE-4 for cryosurgery of small superficial lesions.

**ES - 6**

**URODYNAMIC CHANGES FOLLOWING ONE THIRD RESECTION AND REPAIR OF URINARY BLADDER IN BOVINE - EXPERIMENTAL STUDY**

*Thakre, N.R. Patil, S.N. and Marudwar, S.S.*

Nagpur Veterinary College, Nagpur

The study was conducted on six healthy bullocks of 2-4 years. One third resection and repair of the urinary bladder was carried out through para-anal approach under local infiltration anaesthesia. The micturition pressure and volume recorded at the end of 3rd week was found to be lower than normal values which subsequently approached near normal at the end of the 12th week.

Average micturition frequency sharply increased. It progressively declined towards normal at the end of 12th week. The bursting pressure recorded at the end of 6th and 12th week showed marked increase in bursting pressure than that of normal bursting pressure. Histomorphological changes from the kidney and the bladder tissue collected at 3 weeks showed inflammatory and degenerative changes, whereas tissues collected from kidney and bladder at the end of 6th and 12th weeks revealed reparative changes with normal kidney structure. Bladder musculature showed large number of fibroblasts and newly formed blood vessels.

ES - 7

**URODYNAMIC CHANGES FOLLOWING TWO THIRD RESECTION  
AND REPAIR OF URINARY BLADDER IN BOVINE  
AN EXPERIMENTAL STUDY**

*R.R. Isad, Marudwar, S.S. and Patil, S.N.*

Nagpur Veterinary College

Six bullocks aged 2- 4 years were subjected for two-third resection and repair of urinary bladder via para anal approach under local infiltration anaesthesia. No appreciable variation in temperature, heart rate, respiration rate, ruminal motility interval (RMI) and BUN was observed except micturition frequency. Micturition frequency increased 24 hours post operatively but returned to near normal on 21st day. Capacity of urinary bladder, micturition pressure and bursting pressures were studied prior to and at the end of third, sixth and 12th week of experimentation. The results were discussed. Histopathological changes revealed inflammatory changes in kidney and bladder tissues at third week. These changes were not seen in bladder at the end of sixth week.

ES - 8

**EVALUATION OF BOVINE AMNION AND PORCINE SKIN AS  
BIOLOGICAL DRESSINGS IN BOVINE WOUNDS**

*I.V. Mogha, L.H. Doddamani and R. Kumar*

Division of Surgery

Indian Veterinary Research Institute, Izatnagar - 243 122 (U.P.)

Fresh amnion, 0.5 per cent nitrate preserved amnion and fresh porcine skin were used as biological dressings in experimental cutaneous wounds in bovines. The status of wound healing was assessed by histological and histochemical studies of biopsies, collected on days 3, 7, 15 and 28 post treatment. Acute inflammatory changes were more marked in control wounds, followed by porcine

skin treated wounds in early stages of the study. Wounds dressed with preserved and fresh amnion showed larger proliferation of fibroblasts and angioloblasts. The density of collagen and elastin fibres was relatively less on day 15 in all the wounds and the density increased on day 28. However the collagen and elastin density was more in preserved amnion treated wounds followed by fresh amnion and porcine skin dressed and control wounds.

ES - 9

### EFFICACY OF CURCUMA LONGA AND HELLIANTHUS ANUS ON TISSUE REPAIR IN CALVES - CLINICAL AND BIOCHEMICAL STUDIES

*A.K. Tugnaiyat, M.K. Bhargava, V.P. Chandrapuria  
S.K. Pandey and M.A. Quadri*

College of Veterinary Science and Animal Husbandry  
Jawaharlal Nehru Krishi Vishwa Vidyalyaya, Jabalpur.

Twenty seven male calves of 6 - 12 months age were divided into three groups consisting of nine animals each. The animals of group I and II were treated with powder, chloroform and ether extract ointments of *Hellianthus annus* and *Curcuma longa* respectively, while group III was used as control. Clinical observations revealed better wound contraction, faster healing and epithelialization in the wounds treated with ether extract ointment of *C. Longa* followed by ether extract ointment of *H. annus*. Percent healing, tissue hydroxyproline and collagen were significantly high in treated wounds. The tissue collagen differed insignificantly. The elastin content significantly elevated in all treated wounds at various intervals. Amongst the different preparations of two plants, the chloroform extract ointment of *C. longa* showed significantly high level of elastin followed by ether extract ointment of *H. annus*. Tissue hexosamine was low in ether extract ointment treated wounds of *C. longa* as compared to ether extract ointment treated wounds of *H. annus* and other preparations of two plants.

ES - 10

**PROSPECTS OF FLUORESCEIN SODIUM IN EXPERIMENTAL AND  
CLINICAL SURGERY**

*P.H. Tank, N.N. Balasubramanian and W.P. Archibald David*

Department of Surgery, Madras Veterinary College, Madras

A vital dye, fluorescein sodium, has been used for detecting and mapping tissue perfusion. The paper describes the principle and method of obtaining fluorescein and the prospects of its application in experimental and clinical surgery.

ES - 11

**EXPERIMENTAL CYSTOPLASTY IN BUFFALO CALVES:  
HAEMATOLOGICAL, BIOCHEMICAL, GROSS AND  
HISTOPATHOLOGICAL STUDIES**

*B. Ramesh Kumar and N.N. Balasubramanian*

Department of Surgery, Madras Veterinary College, Madras

An experimental study was conducted in 18 apparently healthy male buffalo calves aged between 6 and 12 months. The animals were randomly divided into three groups comprising of six animals each. Through posterior right flank approach a 5 square centimetre vent was created on the vertex of the bladder in all the animals. Cystoplasty was carried out in group I using fresh autogenic peritoneal graft harvested from the same animal. In group II preserved allogenic bladder wall graft and in group III chemically modified xonogenic human amniotic membrane graft were used for cystoplasty. Haematological and serum biochemical studies were conducted on the preoperative, 3rd, 7th and 15th post-operative days in all the animals. The gross and histopathological changes at the site of cystoplasty were studied on the 15th and 30th post operative days after sacrificing the animals.



**DEVELOPMENT OF A SUITABLE TECHNIQUE OF PERITONEAL  
DIALYSIS FOR URAEMIC CALVES**

*J. Mohanty, V.S.C. Bose, A.K. Ray and A.K. Mishra*

Department of Surgery

Orissa Veterinary College, Bhubaneswar

Nine male calves, divided into three groups of three each, were subjected to post-scrotal urethral ligation for creation of uraemia. Continuous peritoneal dialysis was carried out for two hours after 48 hours of urethral obstruction. Normal saline was used as dialysing fluid.

In group - I a reserve volume of 150 ml/kg bodyweight was maintained with an inflow and outflow rate of 120 ml per minute. In groups II and III, the reserve volume of 30ml/kg was maintained at inflow and outflow rates of 120ml/minute and 80 ml/minute respectively. Technique of placement of catheters and bio-chemical changes in blood as well as dialysates estimated at different intervals were studied. Treatment in group - II was found to be more effective.

## ORTHOPAEDIC SURGERY - SESSION - VII

Guest lecture: *Dr. T.P. Sastry*

Chairman: *Dr. S.S. Marudwar*

Rapporteur : *Dr. K.B.P. Raghavender*

OS - 1

### MANAGEMENT OF ORTHOPAEDIC CONDITIONS OF TIBIOTORSAL JOINT IN THOROUGHBRED RACE HORSES A STUDY OF 6 CASES

*Dr. B. Sridhar*

Senior Veterinary Officer

Hyderabad Race Club, Hyderabad

Two cases of articular fracture of the lateral malleolus and four cases of osteochondritis dissecans (OCD) in thoroughbred race horses are reviewed. Fracture of the lateral malleolus. With generalised swelling of the hock joint and severe lamenes were noticed. They were confirmed by radiography and the fractured fragments were removed surgically four cases of O C D in young thoroughbred horses distension of the tibiotarsal joint and mild lameness. The cases were confirmed by radiography. Tibiotarsal arthrotomy was performed to remove the osteochondral fragments.

All the horses were given stall rest for 2 months with hand walking for 1 hour twice a day. They were given swimming exercise for 4 months. This was followed by gradual introduction in to training. The horses raced successfully without recurrence of lameness.

OS - 2

**DIAGNOSIS AND TREATMENT OF INTRA ARTICULAR CHIP FRACTURES OF THE CARPAL JOINT IN THOROUGHBRED RACE HORSES. A STUDY OF 24 CASES**

***Dr. B. Sridhar***

Senior Veterinary Officer

Hyderabad Race Club, Hyderabad

Twenty four horses with intraarticular chip fractures of the carpal joint showed mild lameness associated with strenuous exercise. Distension of the joint capsule was not always present. Radiography revealed presence of chip fractures in the carpal joint. The site of fracture included distal end of radius, proximal or distal aspect of radial or intermediate carpal and proximal aspect of 3rd carpal bone. Radiocarpal or intercarpal arthrotomy was performed to remove the chip fractures.

The horses were stall rested for 2 months with hand walking for 1 hour twice a day. Later they were given swimming exercise for 4 months, followed by gradual introduction in to training.

OS - 3

**BIOCHEMICAL CHANGES IN SYNOVIA OF EXPERIMENTALLY INDUCED INFECTIOUS ARTHRITIS IN CALVES**

***K. Pratap, G.R. Singh and A.K. Sharma***

Division of Surgery

Indian Veterinary Research Institute

Izatnagar - 243 122, U.P.

Infectious arthritis of the tarsal joint was induced by intra-articular inoculation of *S. Pyogenes* organisms ( $4.8 \times 10^9$  CFU) in 24 calves, divided into four groups of six animals each. In group I, no treatment was given. In group II, III and IV treatment comprising of parenteral and intra-articular administration of specific antibiotic

and joint lavage, commenced from day 11 post infection. Intra-articular transfusion of fresh auto and allogenic synovia was also done in group III and IV, respectively. The groups were evaluated on the basis of biochemical changes in the synovial fluid. There was a significant decrease in sugar, albumin, Albumin:globulin ratio and increase in total proteins, globulin content, alkaline phosphatase, acid phosphatase and lactate dehydrogenase activity was noted in the early stages of infection. Synovial uric acid levels did not change significantly in any group. The altered parameters gradually returned to the base values in the treatment groups.

OS - 4

#### **HEALING OF FEMORAL FRACTURE FOLLOWING INTRAMEDULLARY STAINLESS STEEL PINNING AND INTRAMEDULLARY HORN PEG FIXATION IN CANINE**

*S.R. Shinde and L.B. Sarkate*

College of Veterinary and Animal Sciences

MAU, Parbhani - 431 402 (Maharashtra)

Sixteen healthy dogs of 6-8 months aged were divided into two equal groups. Intramedullary horn peg in group - I and intramedullary stainless steel pin in group - II was used for fixation of femoral fracture. Slight weight bearing by affected limb from 45th post operative day was observed in group - I. Dogs from group - II started weight bearing satisfactorily from 35th day. Radiographic observation revealed perfect reduction and alignment of fractured fragments in both the groups. Cross section radiography and undecalcified ground Section study showed comparatively well organised and bigger callus in group - I than that of group - II.

OS - 5

#### **BIOCHEMICAL STUDIES ON THE EFFECTS OF ULTRASONIC THERAPY DURING FEMORAL FRACTURE HEALING IN CANINES**

*M.S. Vasanth and O. Ramakrishna*

College of Veterinary Sciences, Tirupati - 517 502.

Femoral fracture was induced in 48 dogs and repaired by intramedullary

pin fixation. The animals were divided into two groups of 24 animals each. First group was treated with Ultrasonic therapy of 10 minute duration on alternate days. Second group was left as control. Blood samples were collected before surgery and on days 1,3,5,7,15,21,30,45 and 60 in both Ultrasound treated and control groups. Serum was separated and stored at -20C, and analysed for calcium, Inorganic Phosphorous and alkaline phosphatase. There was no significant variation between the control and Ultrasound treated animals during the period of study.

OS - 6

### **HISTOPATHOLOGICAL STUDIES ON THE EFFECTS OF SHORTWAVE DIATHERMY DURING FEMORAL FRACTURE HEALING IN CANINES.**

*M.S. Vasanth and O. Ramakrishna*

College of Veterinary Sciences, Tirupati - 517 502.

Femoral fracture was induced in 48 dogs and repaired by intramedullary pin fixation. The animals were divided into two groups of 24 animals each. First group was treated with shortwave diathermy of 10 minute duration on alternate days. Second group was left as control. Six animals from each group were euthanized at intervals of 2,4,6 and 8 weeks post-operatively and bone tissue from the fracture site was collected. These were decalcified with 10% formic acid solution. Sections were stained with H & E and Massons trichrome method to demonstrate histopathological changes. Diathermy treated animals showed better healing with early formation of bone spicules with good calcification, early recognizable Harversian system and hemopoetic activity when compared to control animals.

OS - 7.

### **RADIOCARPAL ARTHORODESIS USING DIFFERENT BONE GRAFTS FOR RADIAL PARALYSIS - A CLINICAL, NEUROLOGICAL AND BIO-CHEMICAL STUDY**

*M.K. Narayanan, T.N. Ganesh and T.P. Sasthy*

Madras Veterinary College

This study was carried out on 18 non-descript dogs divided into three groups.

Neurectomy of the radial nerve was performed in all the dogs to create high radial paralysis. All the dogs were observed for seven days after neurectomy to study the symptoms. Arthrodesis of the radiocarpal joint was performed in all the dogs with rigid internal fixation using minidynamic compression plate. Group I dogs received autogenous cancellous bone, Group II dogs received allogenic demineralised bone matrix hydroxyapatite - polyglycidyl methacrylate-gentamycin (ADB-M-HA-PGMA-G) composite and in group III dogs, no graft was used. Parameters studied during the post-operative period were the clinical evaluation, neurological evaluation and biochemical tests. The dogs were sacrificed after 9 weeks and the tissues were collected for estimation of calcium and phosphorous levels at the graft site.

OS - 8

### **RADIOCARPAL ARTHRODESIS USING DIFFERENT BONE GRAFTS FOR RADIAL PARALYSIS - A RADIOLOGICAL AND PATHOLOGICAL STUDY**

**M.K. Narayanan, T.N. Ganesh and T.P. Sasthry**

Madras Veterinary College

The study was carried out on 18 non-descript dogs divided into three groups. Neurectomy of the radial nerve was performed in all the dogs to create high radial paralysis. All the dogs were observed for seven days after neurectomy to study the symptoms. Arthrodesis of the radiocarpal joint was performed in all the dogs with rigid internal fixation using mini dynamic compression plate. Group I dogs received autogenous cancellous bone, Group II dogs received allogenic demineralised bone matrix - hydroxyapatite - polyglycidyl methacrylate - gentamycin (ADB-M-HA-PGMA-G) composite and in group III dogs, no graft was used. During the post-operative period, periodical radiographs were taken to evaluate the healing process. All the dogs were sacrificed 9 weeks after arthrodesis and gross and histopathological changes were studied.

OS - 9

### REPAIR OF FEMUR FRACTURE IN A DOG

*Syed Sajjad Hussain, B.A. Moulvi, S.G. Jeelani and G.S. Sodhi*

A 9 months old English Pointer dog, was presented for the repair of fracture of left femur one month after the accident. The X-ray revealed over-riding transverse fracture of mid shaft femur. The minimum gap between the two fragments was more than a cm in which some radiopaque patches were observed, indicating formation of ectopic calus. The fracture was reduced in an open manner and fixed by intramedullary pinning. However, due to lack of restraint and struggling during post-operative period the reduction was not effective. The second radiograph taken 18 days post-operatively indicated formation of false union between the sides of the bone. The pin was displaced from the distal segment which again resulted in the over-riding of the fragments and side to side union of the bone. The pin was removed 35 days post-operatively. The 3rd. radiograph revealed the complete union of the two fragments of the bone. The free ends of the fragments were in the process of dissolution. The animal was ambulatory with normal weight bearing.

OS -10

### INCIDENCE OF FOOT DISORDER IN CROSSBRED COW IN AN ORGANISED FARM

*S.K. Maiti, T.P. Parai & L.P. Nautiyal*

Division of LPR (C&B)

Indian Veterinary Research Institute

Izatnagar - 234122 (U.P.)

This study was conducted on 1050 crossbred cow for foot disorders. Foot abnormalities accounted as much as 9.46% which includes overgrown hoof, scissor's claw, corcks crew claw, foot-root, seald, foot-abscess, skin lhyperplasia, broken hoof with transverse or longitudinal fissure, bulbar necrosis and arthritis. The incidence was higher in adult female than male animals. The incidence was more in hind feet than fore feet and lateral claws were more frequently than medial affected claws.

OS - 11

**THE USE OF OXYTETRACYCLINE IN THE TREATMENT OF  
ARTHROGRYPOSIS IN A CROSS-BRED CALF**

*S.K. Maiti, T.P. Parai and B.B. Srivastava*

Division of LPR (C&B)

Indian Veterinary Research Institute

Izatnagar - 243122 (U.P.)

A five-day-old male cross-bred Jersey calf of weighing about 10 kg, suffering from severe lameness in both the forelimbs was presented for examination. The calf could not bear weight on the affected limbs although it could rest on its knee joint on the ground. The multiple articular rigidity with varying degrees of joint flexions and gross muscular atrophy were evident. The hind limbs appeared normal. The animal was given oxytetracycline (3 gm, in three divided doses intravenously) along with simple bamboo splint application. The animal recovered completely within ten days.

OS - 12

**IMPROVISED COAPTATION SPLINTING TECHNIQUE FOR FRACTURE  
REPAIR OF LONG BONES IN CATTLE, EQUINES AND CAMELS.**

*G. Singh, P. Bishnoi, R. Garg and T.K. Gahlot*

Department of Surgery & Radiology

College of Veterinary and Animal Science, Bikaner, (Raj.)

Improvised coaptation splinting was attempted in Cattle (19), Equines (4) and Camels (3) for fracture repair of long bones and phalanges. Use of Iron or Aluminium splints which were 3-5 mm. thick, 1 1/2 - 2 inches wide and 4 inches longer than the upper extremity of the fractured bone were found suitable. An additional short splint in compound fractures on the contralateral side of the wound provided extra support to the cast in which a window for lound dressing was made. The Niwar/Latha bandage provided a good opposition of splints with the fractured limb alongwith additional immobility. The required number of plaster bandages were less when compared with wooden splints. A satisfactory weight bearing was observed in all the cases.



OS - 13

**ACQUIRED CONTRACTION OF THE FLEXORS IN TWO CAMEL CALVES FOLLOWING HUMERUS FRACTURE**

*P. Bishnoi, G. Singh, R. Garg & T.K. Gahlot*

Department of Surgery & Radiology,  
College of Veterinary & Animal Science,  
Bikaner (Rajasthan) 334001

Two young camel calves had fracture of humerus and stall rest was given to these animals. Due to partial radial paralysis and disuse of the limb, acquired contraction of the flexors leading to partial flexion of the carpal joint at 4 weeks after the fracture was noticed. Clinical examination revealed fracture of humerus and malunion at the fracture site. The limb could not be straightened completely, hence an improvised clip splint coaptation technique was used under xylazine sedation, after keeping the limb in a perfectly extended position by applying a traction and countertraction plus a caudally directed leverage at carpus. Immobilization for 3 weeks allowed the animal to gain weight bearing. Following removal of device animal could walk and bear weight near normally.

OS - 14

**HOMOLOGOUS SYNOVIAL FLUID TRANSFUSION IN BUFFALO CALVES :  
A CLINICAL, RADIOGRAPHIC AND BIOCHEMICAL EVALUATION.**

*Tadkod. D.M., R.B. Rupavalia, P.B. Patel and P.H. Tank.*

College of Veterinary Science & A.H. Sardarkrushinagar, Gujarat.

Arthritis was induced in 16 knee joints of 12 buffalo calves using turpentine oil. On third post-induction day, six joints were treated with homologous synovial fluid transfusion (HSFT) and in another six HSFT together with betamethasone was employed. Rest of the four joints served as control. The treatment was evaluated on the basis of clinical, radiographic and biochemical changes in synovial fluid. The synovial fluid studies included mucin precipitate quality (MPQ), glucose and total protein

levels and AKP and ACP activities. The study revealed that HSFT with intra-articular cortisone can be a therapy of choice in treating aseptic traumatic arthritis of knee joint in buffalo-calves.

OS - 15

### **OSTEOSARCOMA INVOLVING RADIUS AND ULNA IN A BOXER DOG**

*Raju Sharda, R.C. Ghosh, S. Roy and Manoj Jain*

Department of Surgery and Radiology  
College of Veterinary Sciences & A.H.  
I. G.K.V.V. Raipur, Durg (M.P.) - 491 001

A 6 years old boxer dog weighing 30 kg was brought with a history of swelling on right foreleg below elbow region and intermittent lameness and pain. It was presumed to be a case of tumor involving radius which was confirmed radiographically. The animal was premedicated with atropine sulphate (0.65 mg), triflupromazine (60mg) and Ketamine hydrochloride (180 mg) to achieve optimum anaesthesia for the operation. Endotracheal intubation was done for proper inhalation. Keeping in view irreparable loss of bone the limb was amputated. Histopathologically the growth was diagnosed as Osteosarcoma affecting radius and ulna.

OS - 16

### **MANAGEMENT OF A COMPOUND FRACTURE OF METATARSUS IN A FILLY**

*T.K. Gahlot, D.S. Chouhan, R.J. Choudhary, G. Singh and P. Bishnoi.*

Department of Surgery and Radiology,  
College of Veterinary and Animal Science,  
Rajasthan Agricultural University, Bikaner 334001

A four months old filly was brought to the clinic with a two weeks old compound fracture of right metatarsus. There were wounds and necrosis of skin at cannon region with protrusion of necrosed ends of the fractured bone. Following an appropriate therapeutic regimen, immobilization and combating associated osteomyelitis the fracture healed satisfactorily within six months.

OS - 17

**PARTIAL PATELLECTOMY AND IMMOBILIZATION OF TIBIAL TUBEROSITY AVULSION FRACTURE IN A DOG**

*S. Thilagar, Annie Philip, P.H. Tank;  
R. Jeyaprakash, N.N. Balasubramanian*

Madras Veterinary College  
Tamilnadu Veterinary and Animal Sciences University  
MADRAS - 600 007

A 4 month old German shepherd male pup was referred with severe swelling and pain of right stifle joint. On examination and by lateral and anteroposterior radiography the case was diagnosed as fracture of tibial tuberosity (avulsion) and patella (transverse). Under general anaesthesia, proximal fragment of patella was removed through parapatellar approach. Avulsed tibial tuberosity was immobilised using K.wire and Tension band wire. Skin was closed in a routine manner. Animal showed uneventful recovery with satisfactory rehabilitation after 6 weeks.

OS - 18

**HISTOPATHOLOGICAL EVALUATION OF DEMINERALIZED BONE MATRIX IMPLANTS IN FEMORAL FRACTURE AND DEFECT REPAIR IN CANINES**

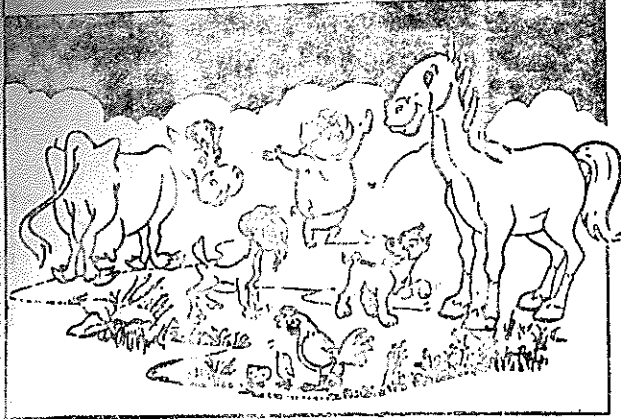
*R.V. Suresh Kumar, O. Ramakrishna, P.K. Sreeraman*

College of Veterinary Science, Tirupati (A.P.)

Demineralized bone matrix implants were evaluated in canine femoral shaft fractures with bone loss. These were compared with autogenous cancellous bone graft and untreated groups. Histological observations were made at 3, 6, 9 and 12 weeks post operatively. Untreated animals showed fibrovascular granulation tissue in early stages where as small spicules of bone were observed in treated groups. Untreated animals showed osseous tissue formation without defect filling. In cancellous bone grafted animals osseous tissue with irregular Haversian system was observed. Early proliferation of osseous tissue and osteoblasts near the host compact bone and well formed periosteum and osseous tissue were noticed in demineralized bone matrix implant treated groups.

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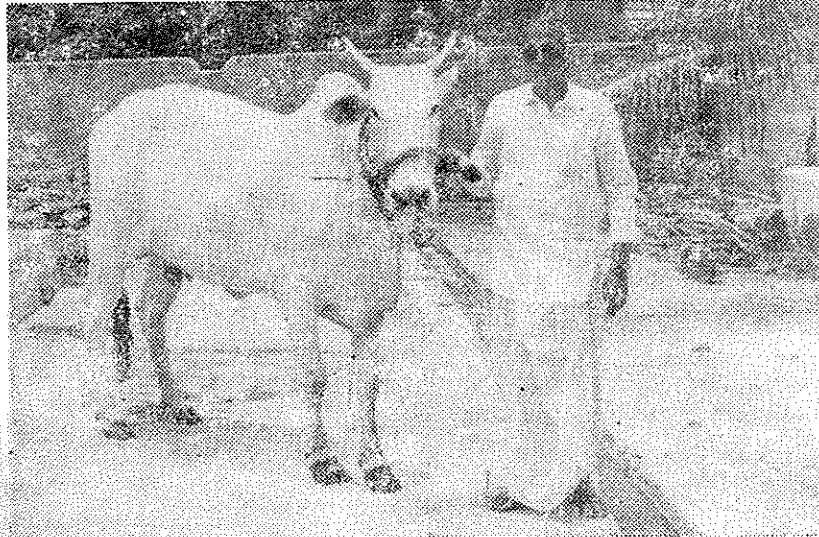


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OS - 19

## EXPERIMENTAL STUDY OF VERTEBRAL DISLOCATION IN CALVES

*A.K. Ray, A.K. Mitra and P.K. Panda*

Department of Surgery & Radiology  
Orissa Veterinary College, O.U.A.T., Bhubaneswar.

Six male bovine calves were subjected to dislocation at the first and second lumbar joint following mid dorsal approach to the vertebral joint. After dislocation the radiograph was taken and clinical symptoms were observed for confirmation. Three animals were kept as control. In the other 3 animals immobilisation of the dislocated vertebrae was achieved by cross pinning technique with stainless steel pins after 24 hours of dislocation.

# DR. V. PEDASOMULU

(Asst. Director), Veterinary poly Clinic,  
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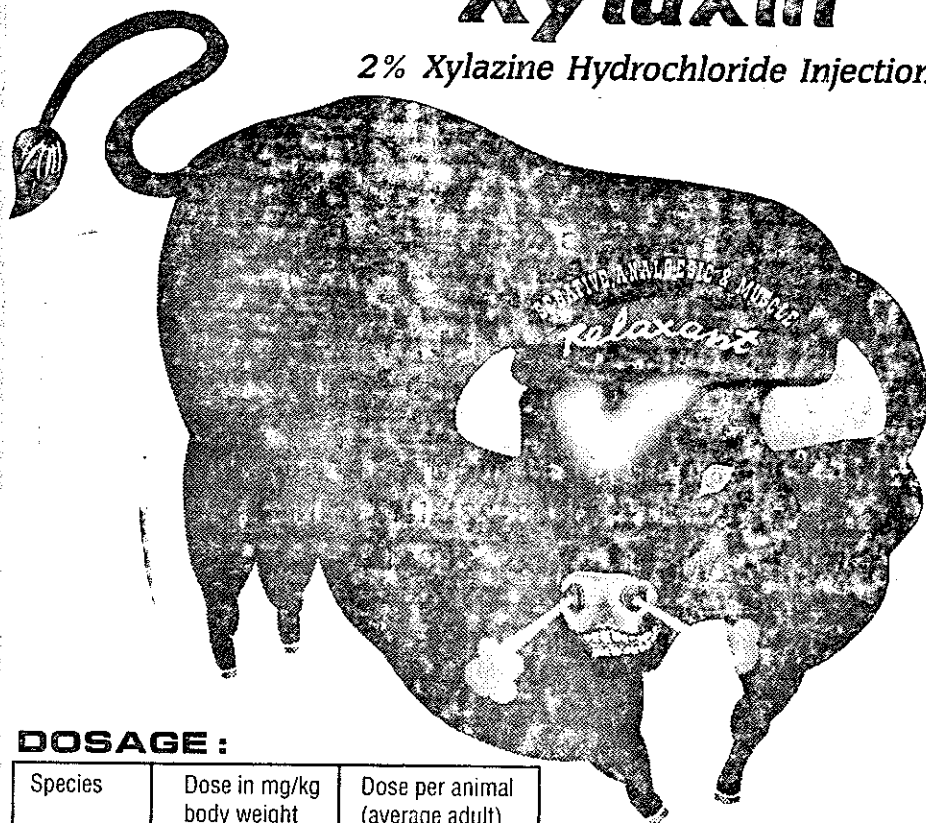
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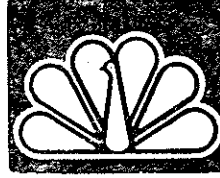




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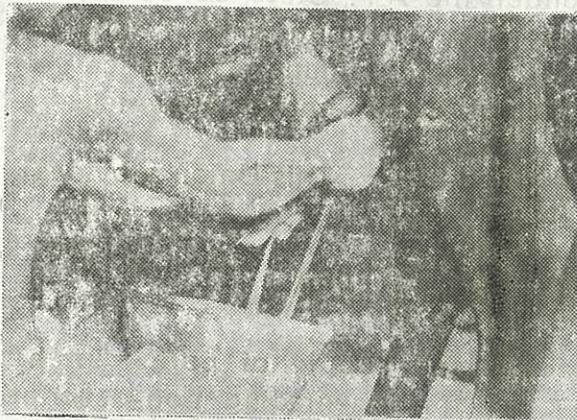
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Bhasker, C.G., M.R.C.V.S., Veterinary Surgeon, Madras Race Club,  
Guindy, Madras. January 24, 1968

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Kumar, A.M.N., Dhandapani, K., Subba Rao, A., Venkatachar, M.C. and  
Sampath, S.R. *Ind.J.Anim.Prod.* (1973) : 4, 207

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Hegde, G.R., Veterinary Assistant Surgeon, I/c Poultry Extension Centre,  
Davangere, Karnataka. *Personal Communication*



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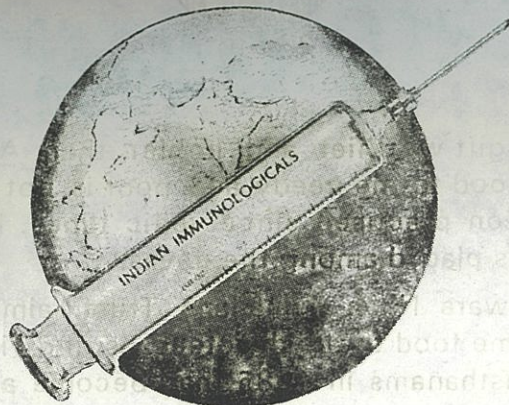
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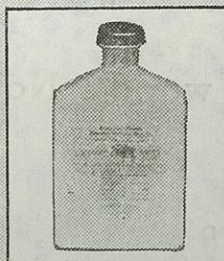
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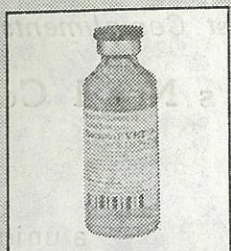


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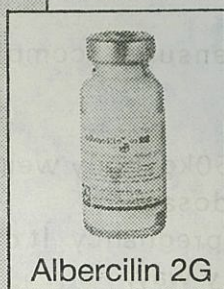


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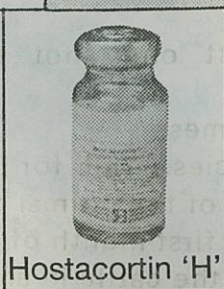
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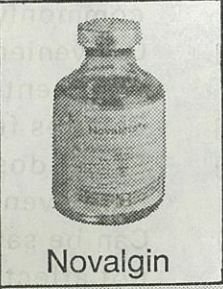
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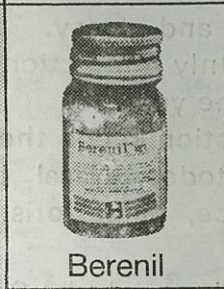
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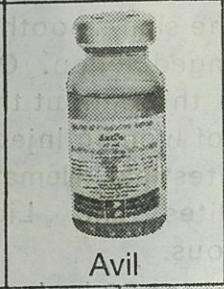
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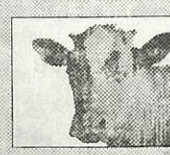


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