



XXII ANNUAL CONGRESS
OF
INDIAN SOCIETY FOR VETERINARY SURGERY
AND
NATIONAL SYMPOSIUM
ON
ADVANCES IN PRE AND POST OPERATIVE MANAGEMENT OF
PATIENT IN VETERINARY PRACTICE

NOVEMBER 05 - 07, 1998

SOUVENIR & ABSTRACTS

DEPARTMENT OF SURGERY,
COLLEGE OF VETERINARY SCIENCE & ANIMAL HUSBANDRY,
ORISSA UNIVERSITY OF AGRICULTURE & TECHNOLOGY,
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Chief Minister

D. O. No.....
Bhubaneswar
Date

MESSAGE

I am extremely glad to know that the XXII Annual Congress and National Symposium of Indian Society for Veterinary Surgery is going to be held at Department of Surgery, Orissa Veterinary College, Bhubaneswar from 5th to 7th November 1998.

Keeping in view the requirements for the development of Animal Husbandry, Veterinary Surgery has a tremendous importance to Indian Economy and other allied fields.

I am sure, the Surgeons and Scientists all over India will best utilize their scientific deliberations for improvement of treatment techniques.

I wish the Symposium every success.

(J. B. PATNAIK)

Shri Prakash Chandra Debta
Minister of State
Fisheries & Animal Resources
Development, Orissa

TEL. 403452 (O), 402257(R)
D.o. no
Bhubaneswar
Date

Message

It gives me immense pleasure to know that xxii Annual Congress of Indian Society for Veterinary Surgery and National symposium on Advances in pre and post operative management of patient in veterinary practice is being organised at Orissa Veterinary College. O.U.A.T. Bhubaneswar from 5 November 1998 to 7 November, 1998 where in reputed delegates from all over India will participate. operative management in verterinary practice has become ,ost important in view of the qualitative development of animal husbandry.

In congratulating the organisers to hold such a prestigious meet at the temple city of Bhubaneswar. I believe the deliberations will be very much helpful to the professionals in the line.

I wish the occassion all success.

(P. C. DEBTA)
Minister of State
Fisheries & Animal Resources
Development, Orissa

ORISSA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
BHUBANESWAR-751003, INDIA

October 17, 1998.

Shri R.K. Bhujabal,
Vice- Chancellor

MESSAGE

I am very happy to know that the Indian Society for Veterinary surgery is organising the xxii Annual congress and National Symposium in Orissa Veterinary College of Orissa University of Agriculture & Technology this year from November 5 to November 7.

This is an excellent opportunity for the eminent veterinary Surgeons and Scientists of the country to get together to take stock of the achievements in this field and to plan future strategy for co-ordinated development.

I wish the convention a great success.

(R. K. BHUJABAL)
Vice- Chancellor
(OUAT)

Principal Secretary to Govt.
Fisheries & Animal Resources
Development Department, Orissa

MESSAGE

It is of emmense pleasure that the XXII Annual Congress and National Symposium of Indian Society for Veterinary Surgery is going to be held at Bhubaneswar from 5th-7th November 1998.

Veterinary Surgery has already established tremendous importance in the field of Animal Science for the economic upliftment of the rural farmers. However it needs further improvement and modernisation.

It is worthy for a congregation of the Surgeons and Scientists all over India for exchange of experience and new techinques. I hope the national Symposium will help the purpose.

I wish the Conference a grand success.

Sd./ M.M. Mohanty,
Principal Secretary to Govt.
Fisheries & Animal Resources
Development Dept., Orissa.

**Directoriat of Animal Husbandry
and Veterinary Services, Orissa
Cuttack.**

***Dr. S. K. Ray*, Ph.D.**
Director, A.H.&V.S., Orissa

MESSAGE

I am extremely happy to learn that College of Veterinary Science and Animal Husbandry, Bhubaneswar is holding the XXII Annual congress of Indian Society for Veterinary surgery and National Symposium from 5th-7th November '1998.

In the recent past the veterinary surgery has made tremendous progress in handing and management of several fatal diseases and productivity of the animals has increased drastically. I am sure the delegates attending the congress will exchange their views, and update their knowledge on the recent advances in the management of surgical problems in animals which will immensely benefit the farmers of the state.

I wish the congress and the symposium a grand success.

S. K. Ray
Director A.H. & V.S., Orissa

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**FACULTY OF VETERINARY SCIENCE AND ANIMAL HUSBANDRY
ORISSA UNIVERSITY OF AGRICULTURE & TECHNOLOGY
Bhubaneswar-751003**

No.....

Date.....

Dr. S.C. Misra, Ph.D.,
Dean
Faculty of Vet. Sc . & A.H.,
OUAT, Bhubaneswar.

Message

I am happy to learn that xxii Annual congress and National Symposium of Indian society for veterinary Surgery is going to be held from 5th to 7th November, 1998.

Veterinary Surgery which constitute a vital branch of Veterinary science deserves greater attention and care in this country for its over all growth. The Orissa veterinary college, Bhubaneswar which has contributed immensely in the field of veterinary surgery with innovative technique now being practised at home and abroad has been appropriately selected as a venue for such an important meet. I am sure the deliberations during the symposium will add to the knowledge of the field veterinarians in the country.

I wish the delegates and organisers all success.

(S. C. Misra)

PROGRAMME

5.11.98 (THURSDAY)

- 7.00 to 8.30 A.M. : Breakfast
- 8.30 to 10.00 A.M. : Registration
- 10.00 to 11.30 A.M. : Inauguration
- 11.30 to 1200 A.M. : Inauguration of Exhibition
- 12.00 to 1.30 P.M. : Technical Session-I Lead papers
: Speakers Dr. J. Mohanty
: Dr. Amresh Kumar
: Dr. Gajraj Singh.
- 1.30 to 2.45 : Lunch (Host:-M/S SARABHAI CHEMICALS)
- 2.45 to 4.00 P.M. : Technical Session-II Large Animal Surgery-I
: Chairman Dr.P. E. Kulkarni
: Rapporteur Dr.S.M. Usturge.
- 4.00 to 4.30 P.M. : Tea and posture session
- 4.30 to 6.00 P.M. : Technical Session-III Large Animal Surgery-II
: Chairman Dr.J.M. Nigam
: Rapporteur Dr. A.P. Singh
- 6.00 to 7.00 P.M. : Award Session
: Young Surgeor Award.
: Dr.M.R.. Patel Award.
- 7.00 to 9.30 P.M. : Cultural programme.
- 9.30 P.M. : Dinner (Host: M/S ORISSA MINING CORPORATION)

6.11.98 (FRIDAY)

- 7.00 to 8.30 A.M. : Breakfast.
- 8.30 to 9.30 : Technical Session-IV Anaesthesiolog
: Chairman Dr.A.K. Mitra
: Rapporteur Dr.S. Thilagar.
- 9.30 to 10.30 A.M. : Technical Session-V Radiology &allied.
: Chairman Dr.S.C.Ojha,
: Rapporteur Dr.T.N. Ganesh

10.30 to 11.00 A.M. : Tea & Posture Session

11.00 to 1.00 P.M. : Technical Session-VI Small Animal Surgery.
Chairman Dr. P.A. Deore
Rapporteur Dr. M. K. Bhargava

1.00 to 1.30 P.M. : Award Session
Best Field Veterinary Clinician Award
(Nasik Local Chapter)

1.30 to 2.45 P.M. : Lunch (Host: Honble. Minister F.A.R.D. Govt. of Orissa)

2.45 to 4.00 P.M. : Technical Session- VII Orthopaedic Surgery.
Chairman Dr.O.Ram Krishna
Rapporteur Dr.Amar Pal

4.00 to 4.30 P.M. : Tea & Posture Session

4.30 to 6.00 P.M. : Technical session -VIII
Field problem in Large Animal Surgery
Technical Discussion.
Chairman Dr.S.M.Jayadevapa
Rapporteur Dr.K.G. Avachat

6.00 to 8.30 P.M. : Cultural Programme

8.30 P.M. : Dinner (Host: Vice-Chancellor,O.U.A.T.)

7.11.98 (SATURDAY)

7.30 to 8.30 A.M. : Technical Session- IX

8.30 to 9.30 A.M. : Field problems in Small Animal Surgery
Technical Discussion.
Chairman Dr.Harpal Singh
Rapporteur Dr.M.S. Vasanth

9.30 to 10.30 A.M. : Technical Session-X
Field problems in Small Animal Anaesthesia.
Chairman Dr.Amresh Kumar
Rapporteur Dr.T.B. Sen

10.00 to 12.00 A.M. : Tea

11.00 to 12.00 A.M. : Plenary Session Reccommondtions
Chairman Dr.A.P.Singh
Rapporteur Dr.A.K. Srivastava

12.00 to 1.00 P.M. : Lunch (Host : Director of A. H. & V. S. Orissa)

1.00 to 7.00 P.M. : Excursion

8.30 P.M. : Dinner.

TECHNICAL PROGRAMME

TECHNICAL SESSION-I

LEAD PAPERS :-

Speakers : Dr.J. Mohanty
Dr. Amresh Kumar
Dr. Gajraj Singh.

TECHNICAL SESSION -II

LARGE ANIMAL SURGERY-I

Chairman : Dr. P. E. Kulkarni
Rapporteur : Dr. S.M. Usturge.

1. SUCCESSFUL REPAIR OF ACCIDENTAL RUPTURE OF ABDOMEN IN COW: A CASE REPORT.
S.P. Visave and K.R. Patil, Veterinary Polyclinic, Jalgaon.
2. PREDICTIVE VALUE OF CERTAIN DIAGNOSTIC TESTS IN BOVINE TRAUMATIC RETICULO- PERITONITIS WITH SPECIAL REFERENCE TO TRYPSIN INHIBITOR ACTIVITY.
B. Dattagupta, A.P. Bhokre, A. Samad and V.S. Panchbhai, Department of Surgery, Marthwada Agricultural University, Parbhani.
3. NAVEL ILL AND POLYARTHRITIS IN CALVES : AN ETIOLOGICAL, ANATOMICAL AND THERAPEUTIC ASSESSMENT.
S.Nayak, R. singh and S. Das, Orissa Veterinary College, Bhubaneswar.
4. SURGICAL MANAGEMENT OF MELANOMA IN DEONI BULLOCK.
D. Dillip Kumar, C.V. Dharnappagoudar, S.M. Usturge and V. Ramakrishna, Department of Surgery and Radiology, Veterinary College, Bidar.
5. A CASE OF FIBROLEIOMYOMA OF PENIS IN A KANKREJ BREEDING BULL .
J.N.Mistry, L.Kaul, S.Chaudhary, V.S Dabas, V.K. Sharma & S.C.Ojha. College of Vety.Sc- & A.H.,G.A.U. Sardar Krushinagar.
6. SURGICAL MANAGEMENT OF RETICULAR FISTULA IN A BUFFALO.
M.Singh, A.C. Varshney, Department of Surgery & Radiology , College of Vety. & Animal Science H.P.K.V., Palampur.
7. SURGICAL CORRECTION OF AN UNUSUAL RUMEN IMPACTION AND FISTULA IN A GOAT.
B.Ramesh Kumar. , R. Jayprakash, S. Dharmaceelan B. Justin william, and W.P. Archibald David. Department of Surgery, Madras Vety. College chennai.
8. ABOMASAL DILATATION IN A CROSS BRED COW.
S. Nayak , J. Mohanty, N. Sahu, and Ranbir Singh. Orissa Veterinary College, Bhubaneswar.

9. SITTING POSITION IS CONGENIAL TO ALLEVIATE ACCIDENTAL ASPHYXIA WITH CIRCULATORY ARREST. AN EXPERIENCE FROM A BOVINE CASE.
S. Nayak, A.K.Ray J. Das, S.K. Sahoo, U.K. Jena and A.K. Mishra. Orissa Veterinary College . Bhubaneswar.
10. AN UNUSUAL FOREIGN BODY IN THE PERINEAL REGION OF COW.
S.Thilagar , S. Ayyappan, & R. Ganesh. Peripheral Veterinary Hospital. TamilNadu Veterinary and Animal Sciences University . Chennai.

POSTER SESSION

1. INTERCALARY ALLOGRAFTING OF SEGMENTAL CORTICAL DEFECTS OF TIBIA IN DOGS USING DYNAMIC COMPRESSION PLATES.
S. Ayyappan, and W.P. Archibald David. Department of Surgery . Madras Veterinary College. Chennai.
2. DEMONSTRATION ON THE METHOD OF FABRICATION OF ARTIFICIAL LIMB FOR ANIMALS.
S. Nayak , Orissa Veterinary College, Bhubaneswar.
3. WILD ANIMAL SURGERY.
R.R. Parsarila, B.M. Jani, D.B. Patil, D.R. Barvalia, N.H.Kelawala, P.V. Parikh, and J.N. Mistry Gujarat Agricultural University, Anand.
 - (a) Extirpation of eye ball in a lion
 - (b) Large intestinal obstruction in a python
 - (c) Skin Grafting in a tigress
 - (d) Traumatic oesophageal fistula in a python
4. THERAPEUTIC EFFICACY OF AUTOGENOUS AND HOMOGENOUS SYNOVIA IN INDUCED ASEPTIC ARTHRITIS IN EQUINES: CLINICAL AND BIOCHEMICAL STUDIES.
H. Sharma, S.K. Sharma, M.S. Kanwar, A.C. Varshney and J.M. Nigam, Department of vety. Surgery & Radiology, College of vety. & Animal Science H.P.K.V. Palampur.
5. DEMONSTRATION ON VARIOUS MODELS OF METAL -SPLINT FOR THE IMMEDIATE IMMOBILIZATION OF FRACTURED LIMB FOR THE SMALL ANIMALS.
S. Nayak , V.S.C.Bose, S. Das and Ranbir singh. Orissa Veterinary college, Bhubaneswar.

TECHNICAL SESSION -III

LARGE ANIMAL SURGERY-II

Chairman - Dr. J.M. Nigam
Rapporteur - Dr. A.P.Singh.

1. CLINICAL MANAGEMENT OF URINE RETENTION IN BULLOCKS- A REPORT OF 3 CASES.
M.Singh ,Arvind Sharma, A.C Varshney, S.K. Sharma and J.M. Nigam. Department of Surgery & Radiology. College of Veterinary & Animal Sciences. H.P.K.V. Palampur.

2. PREPUCIOTOMY FOR RETROGRADE FLUSHING OF THE URETHRAL CALCULI IN BOVINE CALVES.
S. Nayak, S. Das , and Ranbir Singh. Orissa veterinary college, Bhubaneswar.
3. SUCCESSFUL SURGICAL MANAGEMENT OF URETERAL CALCULI IN A BULLOCK : A FIRST REPORT.
S.M. Usturge, B.V. Shivaprakash, B.N. Nagaraja Department of Surgery & Radiology. Veterinary College, Bidar. Karnatak .
4. PROBLEMS WITH THOMAS SPLINT IN LARGE ANIMALS : A STUDY ON 20 CASES .
S.Nayak, B. Panda, and J. Mohanty. Orissa Veterinary College , Bhubaneswar.
5. JOINT DISARTICULATION METHOD FOR LIMB AMPUTATION AT VARIOUS LEVEL IN BOVINE PRACTICE.
S. Nayak , J. Mohanty , & P.N. mishra. Orissa Veterinary College , Bhubaneswar.
6. COMPARATIVE STUDIES ON THE USE OF CORRUGATED DRAIN VS SURGICAL GAUZE FOR SINUS WOUND DRAINAGE IN BOVINE.
B. Ramesh Kumar, R. Jayaprakash, & B. Justin William. Department of Clinics. Madras Veterinary College. Chennai.
7. PRESERVATION OF SKIN GRAFTS IN OILS : A PRELIMINARY STUDY.
R.R. Parasania, N. A. Sonwane, P.V. Parikh, D.R. Barvalia, and N.H. Kelawala. Department of Surgery & R adiology. College of Vety. Sc. & A. H. G.A.U., Anand.
8. EFFECTS OF PRESERVATION ON VIABILITY OF SKIN GRAFTS IN HONEY AT DIFFERENT TEMPERATURES.
R.R. Parsania, N.A. Sonwane, P.V. Parikh, D.R. Barvalia and N.H. Kelawala. Department of Surgery & Radiology. College of Vety. Sc. & A.H. G.A.U. Anand.
9. CRYOPRESERVATION OF SKIN GRAFTS IN LIQUID NITROGEN : A PRELIMINARY STUDY.
R.R. Parsania, N. A. Sonwane, P.V. Parikh, D.R. Barvalia, and N. H. Kelawala. Deptt. of Surgery & Radiology. College of Vety . Sc. & A.H. G.A.U., Ananad.
10. PRE AND POST OPERATIVE MANAGEMENT OF EQUINE PATIENT.
B. Sridhar. Senior Veterinary officer Hyderabad Race Club
Award session : Young surgeon award
Dr. M.R. Patel award

TECHNICAL SESSION -IV

ANAESTHESIOLOGY

- Chairman - Dr. A. K. Mitra
Rapporteur - Dr. S. Thilagar

1. BIOCHEMICAL CHANGES INDUCED BY EPIDURAL XYLAZINE/DETOMIDINE WITH OR WITHOUT LOCAL ANAESTHETICS IN CSF OF BUFFALOES.
S. K. Tiwari, Amresh Kumar, N. S. Jadon and P. V. Parikh. G. B. Pant Univerisity of Agriculture & Technology, Patnagar, U.P.

2. EFFECT OF ATIPAMEZOLE AND YOHIMBINE REVERSAL ON BLOOD BIOCHEMICAL CONSTITUENTS AFTER EPIDURAL XYLAZINE OR DETOMIDINE INJECTION IN BUFFALOES.
S. K. Tiwari and Amresh Kumar.
G. B. Pant University of Agriculture & Technology, Pantnagar, U.P.
3. EPIDURAL ANALGESIA WITH MEDETOMIDINE AND KETAMINE IN BUFFALO CALVES.
K. Pratap, P. Kinjavdekar, Amar Pal, Division of Surgery, I.V.R.I. Izatnagar, U.P.
4. EPIDURAL XYLAZINE AND MEDETOMIDINE IN BUFFALO CALVES
K. Pratap, Amar Pal, and P. Kinjavdekar Division of Surgery, IVRI, Izatnagar, U.P.
5. CLINICO-PHYSIOLOGICAL EFFECTS OF EPIDURAL XYLAZINE AND DETOMIDINE IN BUFFALO CALVES.
K. Pratap, Amar Pal, & P. Kinjavdekar Division of Surgery, IVRI, Izatnagar, U.P.
6. CENTBUCRIDINE HYDROCHLORIDE AS AN EPIDURAL ANAESTHETIC IN CATTLE. CLINICAL AND BIOCHEMICAL STUDIES.
Sanjay Agarwal, M. K. Bhargava, S. K. Pandey, & V. P. Chandrapuria, Department of Surgery & Radiology. College of Vety. Sc. A. H. Jabalpur.
7. PRESUMPTIVE ANALGESIA WITH EPIDURAL LIGNOCAINE AND PETHIDINE FOR THE MANAGEMENT OF POST OPERATIVE PAIN IN DOGS.
Hans Raj, Amar Pal, G. R. Singh & H. P. Aithal Division of Surgery, IVRI, Izatnagar, U.P.
8. MEDETOMIDINE AS AN IMMOBILIZING AGENT IN ELEPHANTS AND ITS REVERSAL BY ATIPAMEZOLE.
B. Sarma, S. C. Pathak, & K. K. Sarma
Department of Surgery & Radiology.
College of Vety. Sc. Assam Agriculture University. Khanapara, Guwahati.
9. COMPARATIVE STUDY OF MEDETOMIDINE WITH XYLAZINE IN COW CALVES : AN EXPERIMENTAL STUDY.
V. P. Chopade, B. M. Gahlod, S. S. Marudwar, S. N. Patil & M. S. Dhakate.
Veterinary college, Nagpur.
10. EFFECT OF EPIPLEURAL BLOCKADE IN ASPIRATORY PNEUMONIA IN BUFFALO CALVES.
Neeraj Tripathi, N. S. Jadon, Amresh Kumar, Department of Surgery & Radiology. College of Vety Sc. G. B. Pant University of Agriculture & Technology. Pantnagar, U.P.
11. CLINICAL USE OF SPINAL XYLAZINE AND KETAMINE IN RUMINANTS.
P. Kinjavdekar, G. R. Singh, Amar Pal. H. P. Aithal and K. Pratap. Division of Surgery, IVRI, Izatnagar, U.P.
12. EFFECT OF SUBARACHNOID XYLAZINE AND MEDETOMIDINE ON HAEMODYNAMICS AND ECG IN GOATS.
P. Kinjavdekar, G. R. Singh, Amar Pal, A. M. Pawde H. P. Aithal & S. K. Maiti.
Division of Surgery IVRI, Izatnagar, U.P.

13. THERAPEUTIC EFFICACY OF REGIONAL BLOCKADE IN CYSTITIS IN BOVINES.
Raju Sharda and Amresh Kumar. Department of Surgery. College of Veterinary Sciences G. B. Pant Univ. of Agri. & Tech. Pantnagar, U.P.
14. THERAPEUTIC EFFICACY OF REGIONAL BLOCKADE IN BOVINE NEPHRITIS.
Raju Sharda, Amresh Kumar and N. S. Jadon, Department of Surgery & Radiology College of Vet. Sc., G. B. Pant Univ. of Agri & Tech. Pantnagar, U.P.
15. CLINICAL AND PHYSIOLOGICAL EFFECTS OF ELECTROACUPUNCTURE ANAESTHESIA FOR NECK AND THORACIC SURGERY IN DOGS.
Gulshan Kumar & Amresh Kumar. Department of Surgery & Radiology. College of Vety. Sc. G. B. Pant Univ. of Agril. & Tech. Pntnagar. U. P.
16. STIMULATION OF ANTIBODY RESPONSE BY ELECTROACUPUNCTURE IN ARTHRITIC BUFFALO CALVES.
A. M. Pawde, O. P. Gupta, G. R. Singh, N. S. Parihar, S. V. S. Malik & P. Kinjavdekar. Division of Surgery IVRI, Izatnagar, U.P.
17. MODIFICATION OF SURGERY INDUCED STRESS RESPONSE WITH NEURAXIAL BLOCKADGE IN DOGS.
Hans Raj, Amar Pal, G. R. Singh, V. P. Varshney Division of Surgery, IVRI, Izatnagar, U.P.
18. REPAIR OF AURAL HAEMATOMA UNDER XYLAZINE - KETAMINE ANAESTHESIA IN A CUB.
Amar Pal, P. Kinjavdekar, H. P. Aithal, G. R. Singh & S. K. Maiti. Division of Surgery, IVRI, Izatnagar, U. P.
19. EFFECT OF HYPOTHERMIA ON PHYSIOLOGICAL AND HAEMATO - BIOCHEMICAL PARAMETERS DURING CARDIOPULMONARY BYPASS IN DOGS.
R. Jayaprakash, Ravi Sunder George, C. Radhakrishan, K. Ramanujam, N. N. Balasubramanian, & Archibald David. Deptt. of Surgery, Madras Vety. College, Chennai.

TECHNICAL SESSION - V

RADIOLOGY AND ALLIED

Chairman : Dr. S. C. Ojha
Rapporteur : Dr. T. N. Ganesh

1. RADIONUCLIDE BONE SCAN : SENSITIVE TOOL FOR DIAGNOSIS AND MANAGEMENT OF CANINE BONE DISORDERS.
P. R. Chaudhari, B. L. Malpani, C. C. Wakankar, C. L. Badgujar, D. N. Pahuja, & A. M. Samuel, Radiation Medicine Centre. Bhaba Atomic Research Centre. T.M.C. Annexe and Deptt. of Surgery Bombay Veterinary College, Parel, Mumbai.
2. ULTRA SONOGRAPHIC DIAGNOSIS OF CRYPTORCHIDISM AND ITS SURGICAL MANAGEMENT IN TWO CLINICAL CASES.
P. K. Bose, T. B. Sen, P. K. Samanta, B. Singh, S. Halder, A. Dutta, B. K. Maity, A. Rakshit, S. Sanki, P. Bhagat, and P. Biswas. Deptt. of Surgery & Radiology College of Vety. & Animal Sc. West Bengal Univ. of Animal & Fishery Sciences.

3. CLINICAL EVALUATION OF INTRAVASCULAR CONTRAST AGENTS AND ITS EFFECT ON HISTAMINE RELEASE IN DOGS.
K. Sudhakar, V. K. Sharma, A. Kumar, & H. Singh Deptt. of Surgery & Radiology. College of Vety. Sc. G. B. Pant Univ. of Agri & Tech. Pantnagar, U. P.
4. THERAPEUTIC EFFICACY OF HOMOGENOUS SYNOVIAL FLUID TRANSFUSION IN ASEPTIC ARTHRITIS IN EQUINES : CLINICAL AND RADIOLOGICAL EVALUATION.
A. K. Gupta, A. C. Varshney, Mohinder Singh, S. K. Sharma and J. M. Nigam. Deptt. of Surgery & Radiology College of vety. & Animal Sc. H.P.K.V. Palampur Himachal Pradesh.
5. LUNG ABSCESSSES AND CAVITORY LESIONS IN CATTLE AND BUFFALOES - RADIOGRAPHIC OBSERVATIONS.
Jaivinder Singh, S. K. Chawla, A. P. Singh, Jit singh and Prem Singh. Deptt of Vety. Surgery & Radiology College of Vety. Sciences. C.C.S.- H.A.U. Hissar.
6. CONTRAST ARTHROGRAPHY OF THE CARPAL JOINT IN CALVES.
D. S. Bist, Rishi Tayal, and A. P. Singh Deptt. of Surgery & Radiology, College of Vety. Sc. C.C.S. H.A.U., Hissar.
7. SONOGRAPHIC DIAGNOSIS OF HYDRONEPHROSIS IN A DOG.
L. Ranganath, & W. P. Archibald David. Deptt. of Surgery, Madras Veterinary College, Chennai.
8. DIAGNOSIS OF RENAL ISCHEMIA BY UROGRAPHY AND NEPHROSONOGRAPHY.
L. Ranganath and W. P. Archibald David. Deptt. of Surgery. Madras Vety. College, Chennai.

TECHNICAL SESSION - VI

SMALL ANIMAL SURGERY

Chairman : Dr. P. A. Deore
Rapporteur : Dr. M. K. Bhargava

1. ORAL PAPILLOMATOSIS IN CANINE - A CASE REPORT
Suresh Chandra, J. Baviskar, Cattle Breeding Farm Kopargaon. Dist - A. Nagar. (M.S.)
2. CLINICAL STUDIES ON CANINE NEOPLASMS - REVIEW OF 60 CASES.
Mohinder Singh, J. M. Nigam, S. K. Sharma, A. C. Varshney and Arvind Sharma. Deptt. of Surgery & Radiology College of Vety. & Animal Sc. H.P.K.V., Palampur.
3. MULTIPLE MAMMARY TUMOURS IN A BITCH AND ITS SURGICAL MANAGEMENT - A CASE REPORT.
S. Ayyappan, S. Thilagar, Md. Shafiuzama, & R. Ganesh. Peripheral Vety Hospital. Directorate, Centre for Animal Health Studies. madhavaram Milk Colony. Tamil Nadu Veterinary and Animal Sciences University, Chennai.
4. LOCAL ADMINISTRATION OF CORTICOSTEROID FOR TREATMENT OF AURAL HAEMATOMA IN DOGS.
H. P. Aithal, P. Kinjavdekar, Amar Pal, S. K. Maiti, A. M. Pawde. and G. R. Singh. Division of Surgery IVRI, Izatnagar, U. P.

5. SECONDARY ECTOPIC PREGNANCY IN A QUEEN CAT - A CASE REPORT.
S. Thilagar, S. Ayyappan, & R. Radhika. Peripheral Veterinary Hospital, Centre for Animal Health Studies, Tamil Nadu Vety, & Animal Sc. Univ. Chennai.
6. CLINICAL STUDIES ON TOXIN INDUCED MENINGITIS IN ROTTWEILERS.
S. Thilagar, S. Ayyappan, and R. Ganesh. Peripheral Veterinary Hospital, Centre for Animal Health Studies. Tamil Nadu Vety. & Animal Sc. Univ. Chennai.
7. EXPERIMENTAL EVALUATION OF A NEW ABSORBABLE HAEMOSTATIC GAUZE - 'SANGUISTAT'
S. K. Maiti, N. Kumar, P. Kinjavdekar, and G. R. Singh Division of Surgery, IVRI, Izatnagar, U. P.
8. EXPERIMENTAL STUDIES ON A NEW SYNTHETIC ABSOBABLE SUTURE FROM FISH-GUT COLLAGEN.
S. K. Maiti, M. Hoque, N. Kumar, Kalicharan & G. R. Singh. Division of Surgery, IVRI, Izatnagar, U.P.
9. ROLE OF HOMOLOGOUS VEIN TISSUE GRAFTING IN CANINE URETHRAL WOUND HEALING.
Tajinderjit Singh. K. I. Singh and V. K. Sobti, Deptt. of Vetty. Surgery & Radiology. C.O.V.S. PAU, Ludhiana.
10. GENERALISED SUBCUTANEOUS EMPHYSEMA IN MONGREL DOG.
S. Thilagar, & S. Ayyappan, Peripheral Veterinary Hospital, Centre for Animal Health Studies. Tamil Nadu Veterinary and Animal Sc. Univeristy Chennai.
11. SURGICAL TRANSPOSITION OF STENSONS DUCT FOR KERATOCONJUCTIVITIS SICCA IN DOGS.
S. M. Jayadevappa, and Prem Kumar Deptt. of Surgery & Radiology. Vety. College Hebbal. Bangalore.
12. LAPAROSCOPIC OVARIECTOMY IN DOGS.
T. N. Ganesh, & S. Dharmaceelan. Deptt. of Clinics. Madras Vety. College, Chennai.
13. LAPAROSCOPY AND GUIDED BIOPSY OF LIVER AFFECTED WITH CIRRHOSIS IN A DOG.
T. N. Ganesh, B. Nagarajan, B. Ramesh Kumar, and S. Dhandapani. Deptt. of Clinics. Madras Vety. College, Chennai.
14. URETHROCYSTOSCOPIC STUDIES IN A DOG.
T. N. Ganesh, Md. Hassan Rahman Khan, Department of Clinics. Madras Veterinary College, Chennai.
15. TREATMENT OF MIDSHAFT FEMORAL FRACTURE IN A TIGER CUB.
I. Nath, V.S.C. Bose, B. N. Mohanty, S. Das, R. Singh, S. Nayk, A. K. Mishra and A. K. Ray. Orissa Veterinary College.
16. UNUSUAL FOREIGNBODY SYNDROME IN A DEER (AXIS AXIS).
I. Nath, S. Das, B. N. Mohanty, A. K. Mishra, V.S.C. Bose and A. K. Ray. Department of Surgery, Orissa Veterinary College, Bhubaneswar.
17. TREATMENT OF MIDSHAFT FEMORAL FRACTURE IN A MONKEY.
I. Nath, A. K. Ray, S. Das & A. K. Mishra. Department of Surgery, Orissa Veterinary College, Bhubaneswar.

AWARD SESSION

Best Field Veterinary Clinician Award
(Nasik Local Chapter)

TECHNICAL SESSION - VII

ORTHOPAEDIC SURGERY

Chairman : Dr. O. Rama Krishna

Rapporteur : Dr. Amar Pal.

1. CORRECTION OF LIMB DEFORMITY IN A DOBERMANN PINSCHER BITCH USING ILIZAROV TECHNIQUE - A CASE REPORT.
Tamal. B. Sen, P. K. Bose, P. K. Samanta, B. K. Maiti, Deptt. of Vety. Surg & Radiology Faculty of Vety. & Animal Sc. W.B.U.A. & F.S. Calcutta. West Bengal.
2. TREATMENT OF HIP DISPLASIA / HIP DISLOCATION BY EXCISION ARTHROPLASTY OF FEMORAL HEAD IN FOUR DOGS.
B. Sridhar, Senior Vety. Officer, Hyderabad Race Club.
3. A RETROSPECTIVE STUDY OF BONE AND JOINTS DISORDERS IN FARM AND PET ANIMALS.
Deepu Philip Mathew, K. Ameerjan, S. Thilagar, W. P. Archibald David. Department of Surgery Madras Vety. College, Chennai, Tamil Nadu.
4. SUPRACONDYLAR FEMORAL FRACTURE FIXATION WITH DIFFERENT TECHNIQUES. - A GROSS AND MICROSCOPIC STUDY.
H. P. Aithal, G. R. Singh & A. K. Sharma, IVRI, Izatnagar, U. P.
5. PRODUCTION OF AN ANIMAL MODEL OF POST - TRAUMATIC OSTEOMYELITIS.
M. Hoque, & G. R. Singh. Division of Surgery IVRI, Izatnagar, U.P.
6. EFFECT OF ANABOLIC HORMONE IN FRACTURE HEALING - AN EXPERIMENTAL STUDY.
S. K. Maiti, M. Hoque, H. P. Aithal & G. R. Singh Division of Surgery, IVRI, Izatnagar, U. P.
7. RADIOLOGICAL EVALUATION OF AUTOGENOUS BONE GRAFT AND BONE SUBSTITUTES IN THE MANAGEMENT OF FRACTURE HEALING.
S. Singh, G. R. Singh, S. K. Maiti, & M. Hoque. Division of Surgery, IVRI, Izatnagar, U. P.
8. BACTERIOLOGICAL OBSERVATION IN EXPERIMENTAL POST - TRAUMATIC OSTEOMYELITIS.
M. Hoque, G. R. Singh, & D. K. Singh. Division of Surgery, IVRI, Izatnagar, U. P.
9. CLINICAL MANAGEMENT OF COMMUNUTED FRACTURE OF TIBIA IN A PUP BY OPEN REDUCTION AND INTERNAL FIXATION - A CASE REPROT
S. Ayyappan, S. Thilagar, & R. Ganesh. Peripheral Vety. Hospital, Directorate Centre for Animal Health Studies. Madhavaram Milk Colony, Tamil Nadu Vety. and Animal Sc. University, Chennai.
10. CLINICAL AND RADIOLOGICAL STUDY ON CHRONIC LAMENESS IN DOGS.
S. Ayyappan, S. Thilagar, R. Ganesh, T. N. Ganesh. Peripheral Vety. Hospital. Directorate Centre for Animal Health Studies. Madhavaram Milk Colony, Tamil Nadu Vety. & Animal Sc. University, Chennai.

11. INTRA ARTICULAR PROCAINE THERAPY FOR THE MANAGEMENT OF INFECTIOUS ARTHRITIS.
Neeraj Tripathi, N. S. Jadon, V. K. Sharma, & Amresh Kumar. Deptt. of Surgery and Radiology College of Vety. Sc. G. B. Pant Univ. of Agril & Tech Pantnagar.
12. EFFECT OF CORIANDRUM SATIVUM IN ACCELERATING HEALING PROCESS OF EXPERIMENTALLY FRACTURED RADIOULNA OF DOG.
I.P. Singh , V.K. Sharma , & A. kumar .Deptt. of Surgery & Radiology. College of Vety. Sc. G.B. Pant Univ. of Agril & Tech. pantnagar U.P.
13. CLINICAL AND RADIOGRAPHIC EVALUATION OF MODIFIED TRANSFIXATION ALONGWITH BONE PLATING TECHNIQUE FOR REPAIR OF METACARPAL FRACTURE IN BOVINES.
H.Singh , V.K. Sobti, & P.S. Bansal . Deptt. of Surgery &Radiology. P.A.U. Ludhiana .
14. USE OF POLYTETRAFLUOROETHYLENE (PTFE) AND FREEZED TRACHEAL MUCOSA FOR RECONSTRUCTION OF ARTIFICIAL TENDON SHEATH IN COW CALVES : CLINICAL, RADIOLOGICAL AND HISTOPATHOLOGICAL STUDY
O.P. Gupta, Naveen Kumar, G.R. Singh, A.K. Sharma & N.S. Parihar. Division of Surgery, IVRI, Izatnagar.
15. AUTOGENOUS TENSOR FASCIA LATA AND DERMAL GRAFT FOR GAP REPAIR OF SUPERFICIAL DIGITAL FLEXOR TENDON IN COW CALVES: CLINICAL, RADIOLOGICAL AND HISTOPATHOLOGICAL STUDY.
A.K. Sharma O.P. Gupta, Naveen Kumar, G. R.Singh & N.S. Parihar, Division of Surgery, IVRI izatnagar.
16. ROLE OF REHABILITATION AND PHYSIOTHERAPY FOR TRAUMATIC CARPAL LUXATION AND FEMUR FRACTURE AND ITS SURGICAL MANAGEMENT IN A DOG.
S. thilagar, T.N.Ganesh, B. Ramesh Kumar, & A.P.Nambi Peripheral Vety. Hospital . Centre for Animal Health Studies . Tamil Nadu Veterinary and Animal Sciences University, Chennai.

TECHNICAL SESSION I

LEAD PAPERS:

Speakers : Dr. J. Mohanty
Dr. Amresh Kumar
Dr. Gajraj Singh

TECHNICAL SESSION II

LARGE ANIMAL SURGERY I

Chairman : Dr. P. E. Kulkarni
Moderator : Dr. S.M. Usturge

UNSUCCESSFUL REPAIR OF ACCIDENTAL RUPTURE OF ABDOMEN IN COW: A CASE REPORT

S.P. Visave, K. R. Patil

Veterinary Polyclinic, Jalgaon

A case of a cow with railway accident presented to veterinary Polyclinic, Jalgaon. In this article attempt has been made to describe the clinical signs, diagnosis and treatment. The cow had been pushed away by a train, fortunately it was pushed away and the cow survived. But the following signs have been observed. The cow was lying on left side with rupture of 11th-12th ribs in midway and tearing of skin and muscle, with peritonium resulting evisceration from the wound, cow was lying in shock. On examining the cow, one litre DNS 5% with 10ml Dexamethasone, 100mg ampicillin and 10ml Diclofenac were given parenterally. The ruptured area was washed with p.p. solution (1:1000) and powder 5gm was poured in abdominal cavity and the rumen mass was palpated in abdominal cavity. The operation was performed under local anaesthesia. The intestines were resected carefully & they were sutured, & fractured fragments were resected & were put in position, abdominal

muscle layer were sutured with catgut.

After operation 450 ml of calcium borogluconate along with DNS 5% & 5ml Dexamethasone was again given parenterally. After two hour animal put stand itself. Antibiotic Dicloxylin with Diclofenac was given for 5 days. Animal showed full recovery and stabs were removed after 10 days.

After operation 450 ml of calcium borogluconate along with DNS 5% & 5ml Dexamethasone was again given parenterally. After two hour animal put stand itself. Antibiotic Dicloxylin with Diclofenac was given for 5 days. Animal showed full recovery and stabs were removed after 10 days.

PREDICTIVE VALUE OF CERTAIN DIAGNOSTIC TESTS IN BOVINE TRAUMATIC RETICULO PERITONITIS WITH SPECIAL REFERENCE TO TRYPSIN-INHIBITOR ACTIVITY

B. Dasgupta, K.P. Bhokre, A. Samal and V.S. Prasad

Department of Surgery, Veterinary College, Agricultural University, Raipur

ABSTRACT: The present study was conducted to study the predictive value of certain diagnostic tests including total leukocyte count, differential leukocyte count, trypsin inhibitor assay, radiological examination and exploratory laparotomy. Out of 50 cases, 26 were diagnosed positively for TRP and 24 negative for TRP. The results indicated that TLC and neutrophils percentage was significantly elevated in 80 & 75 percent animals, respectively, in TRP positive group. The trypsin inhibitor assay ranged from 0 to 84 mg/ml in TRP positive cases, whereas, the cut off level of TI was 8 mg/ml. The TI activity was found to be superior to TLC & DLC in regards to percentage agreement. The radiological investigations in 29 animals indicated presence of foreign body in 10 cases, reticulo-phrenic adhesions in 7 cases and 12 cases negative for any lesions.

ABSTRACTS

TECHNICAL SESSION I

LEAD PAPERS:

Speakers : Dr. J. Mohanty
Dr. Amresh Kumar
Dr. Gajraj Singh

TECHNICAL SESSION II

LARGE ANIMAL SURGERY I

Chairman : Dr. P. E. Kulkarni
Rapporteur : Dr. S.M. Usturge

SUCCESSFUL REPAIR OF ACCIDENTAL RUPTURE OF ABDOMEN IN COW: A CASE REPORT.

*S.P. Visave, K. R. Patil
Veterinary Polyclinic, Jalgaon*

A case of a cow with railway accident was presented to veterinary Polyclinic, Jalgaon. In this article attempt has been made to put on record a successful repair of rupture of abdomen under field condition.

The cow has been dashed with railway engine, fortunately it was pushed away and hence a cow survived, But the following damages have been observed. The cow was dashed on left side with rupture of 11th, 12th & 13th rib in midway and tearing of skin and muscles, with peritonium resulting eversion of rumen from the wound, cow was lying down & in shock. On examining the cow, one liter of DNS 5% with, 10ml Dexamethasone, 20ml Gentamycine and 10ml Diclofenac injection was given parenterally. The ruptured mass was washed with p.p. solution (1:1000) and Dicrysticin powder 5gm was poured in abdominal cavity and the rumen mass was pushed in abdominal cavity. The operation was performed under local anaesthesia. The fractured ribs were resected carefully & they were cut centrally, & fractured fragments were removed, ribs were put in position, abdominal

muscle layer were sutured with catgut, alongwith peritonium. Dicrysticin powder was poured on suture line and skin layer was sutured with nylon and antiseptic ointment was applied.

After operation 450 ml of calciumborogluconate along with DNS 5% & 5ml Dexamethazone was again given parenterally After two hour animal put stant itself, Antibiotic Dicrysticin with Diclofenac was given for 5 days Animal showed full recovery and suture were removed after 10 days.

PREDICTIVE VALUE OF CERTAIN DIAGNOSTIC TESTS IN BOVINE TRAUMATIC RETICULO PERITONITIS WITH SPECIAL REFERENCE TO TRYPSIN- INHIBITOR ACTIVITY

*B. Dattagupta, A.P. Bhokre, A.Samad
and V.S. Panchbhai Department of Surgery,
Marathwada Agricultural University,
Parbhani*

Fifty bovines exhibiting clinical signs of traumatic reticulo-peritonitis and allied syndromes were studied for certain diagnostic tests including total leukocyte count, differential leukocyte count, trypsin inhibitor assay, radiological examination and exploratory laparo-rumenotomy. Out of 50 cases, 36 were diagnosed positively for TRP and 14 negative for TRP. The results indicated that TLC and neutrophils percentage was significantly elevated in 80 & 75 percent animals, respectively, in TRP positive group. The trypsin inhibitor assay ranged from 8 to 64 mg/ml in TRP positive cases, whereas, the cut off level of TI was 8 mg/ml. The TI activity was found to be superior to TLC & DLC in regards to percentage agreement. The radiological investigations in 29 animals indicated presence of foreign body in 10 cases, reticulo-phrenic adhesions in 7 cases and 12 cases negative for any lesions.

Exploratory rumenotomy was carried out in 36 cases of positively TRP diagnosed after radiological & TI assay examination showed penetrating foreign body or evidence of foreign body penetration. The investigations indicated that Trypsininhibitor assay could be a promising test to diagnose TRP and its inflammatory lesions in bovine.

NAVEL ILL AND POLYARTHRITIS IN CALVES! - AN ETIOLOGICAL, ANATOMICAL AND THERAPEUTIC ASSESSMENT

S. Nayak, R. Singh & S. Das Faculty of Veterinary Sciences & Animal Husbandry, OUAT Bhubaneswar-3

The cause of navel ill in calves has been discussed. The anatomical construction of navel cord has been discussed. The anatomical construction of navel cord has been illustrated and a simple, successful method of flushing of the abscess pockets from the abdominal cavity with the help of a polythene catheter has been described. The incidence of navel ill was detected to be more in male calves than female.

SURGICAL MANAGEMENT OF MELANOMA IN DEONI BULLOCK.

D. Dillip kumar, C.V. Dharnappagoudar S. M. Usturge & V. Ramkrishna, Deptt. of Surgery and Radiology Veterinary College Bidar-585401 (Karnataka State)

Ten Year old Deoni bullock was presented to Veterinary College Bidar with swelling at right knee joint, the swelling was hard and highly vascular. The animal was sedated with xylazine 0.1 mg / Kg body weight by intramuscular route and ring block with lignocaine was done and the mass was excised by surgery and wound was closed as per standard procedure. The mass was subjected to histopathology. Histopathological study confirmed the mass as melanoma.

A CASE OF FIBROLEIOMYOMA OF PENIS IN A KANKREJ BREEDING BULL

J. N. Mistry, L.Kaul, S. Chaudhary, V.S. Dabas, V.K. Sharma and S.C.Ojha College of Veterinary Sc. &A.H. G.A.U. Sardarkrushinagar

An unusual case of penile tumour existing since four months in a ten year old Kankrej breeding bull is presented. Histopathology examination confirmed it to be Fibroleiomyoma. Its clinical relevance and surgical management have been discussed.

SURGICAL MANAGEMENT OF RETICULAR FISTULA IN A BUFFALO.

Mohinder Singh and A.C. Varshney Department of Surgery and Radiology, College of veterinary & Animal Sciences, Himachal Pradesh Krishi Vishvavidyalaya, Palampur- 176062.

An adult high yielder Murrah buffalo was presented in the College Clinic with history of anorexia, emaciation, tympany and oozing of ingesta through an open wound existing on the ventral aspect in the post Xiphoid area for the last one month. On clinical examination, a fistulous tract running caudally towards reticulum and measuring 6"X 1" was ascertained by probing. The confirmation of the tract was made by radiography. The reticulum was approached through left paracostal transabdominal incision under sedation and local infiltration analgesia. The fistulous tract was identified and ligated at two places to obliterate its passage. Post operatively the animal was administered antibiotics, analgesics and enough intravenous fluids for five days. Semisolid feed was offered on 6th day. The animal showed uneventful recovery.

SURGICAL CORRECTION OF AN UNUSUAL RUMEN IMPACTION AND FISTULA IN A GOAT

*B. Ramesh Kumar, R. Jayaprakash,
S.Dharmaceelan , B.Justin William and
W.P. Archibald David*

*Dept of Surgery, Madras Veterinary
College, Chennai-600007.*

A non- descript she goat aged about 2 years was brought to the Madras Veterinary College Hospital with the history of punctured wound on the left abdomen wall with oozing out of the rumen ingesta through the opening. The animal was treated by a local veterinarian for the wound on the left flank with conventional methods. The general condition of the animal was fair and it had partial anorexia and distention of the abdomen . On clinical examination the animal showed a rumen fistula about 3 cms in diameter at the lower flank region.

Under xylazine sedation and local infiltration analgesia with 1% Lignocaine HCl the fistula was enlarged and the adhesions surrounding the area were cleared. On detailed examination the rumen cavity was found impacted with polywaste such as plastic sheets and bags, plastic wires, twisted ropes etc. Hence the rumen incision was extended further as per routine rumenotomy technique. The foreign materials weighing about 3kgs were removed from the ruminal cavity. About 100 gms of Sandy material was removed from the reticulum. The rumen was refilled with soaked wheatbran and its wall was closed by routine manner. The muscle and skin incisions were also closed by standard techniques.

The post-operative therapy for the animal consisted of intravenous administration of 5% Dextrose with electrolytes and antibiotics for 7 days. The cutaneous sutures were removed on the 8th post-operative day and the animal made on uneventful recovery.

ABOMASAL DILATATION IN A CROSSBRED COW.

*S.Nayak, J.Mohanty, N. Sahu and
Ranbir Singh. Faculty of Veterinary Science
and Animal Husbandry, Orissa.*

A crossbred cow with the history of bull crossing 4days back developed severe tympany with swelling confined to the right flank. On rectal exploration, it was diagnosed to be a case of abomasal dilatation. Immediate surgical intervention was done with complete decompression and passage of faeces. It was found to be a simple case of abomasal dilatation.

SITTING POSITION IS CONGENIAL TO ALLEVIATE ACCIDENTAL ASPHYXIA WITH CIRCULATORY ARREST- AN EXPERIENCE FROM A BOVINE CASE.

*S.Nayak, A.K. Ray, J.Dash, S.k.Sahoo,
U.K.Jena and A.K. Mishra. Faculty of
Veterinary Science and Animal Husbandry,
Orissa.*

A case of accidental asphyxia with circulatory arrest in a cow has been discussed. Immediate putting the patient in its sitting position is Found to be a rational approach and congenial for resuscitation.

AN UNUSUAL FOREIGN BODY IN THE PERINEAL REGION OF COW

*S Thilagar, S. Ayyappan and R. Ganesh
Peripheral veterinary Hospital Centre for
Animal Health Studies Tamil Nadu
Veterinary and Animal Sciences University
Cheennai-600051.*

A 4 year old crossbred cow was brought to the peripheral Veterinary Hospital with a history of progressive swelling of 2 months duration in the perineal region near the udder parenchyma. On palpation of the swelling it was moderately hard and revealed inspissated pus on aspiration. In opening the abscess an unusual wooden foreignbody was removed. The nature and size of the foreignbody will be discussed.

POSTER SESSION

INTERCALARY ALLOGRAFTING OF SEGMENTAL CORTICAL DEFECTS OF TIBIA IN DOGS USING DYNAMIC COMPRESSION PLATES

S. Ayyappan, And W. P. Archibald David

Dept. of Surgery

Madras Veterinary College

Tamil Nadu Veterinary and Animal Sciences University

Chennai - 600 007

Dynamic compression plating technique was used for rigid immobilisation of intercalary allografts in created segmental defect of tibia in dogs. Approximately 2.5 cms to 2.8cms of allograft were used to fill the defect and the graft was immobilised using an 8 hole 3.5mm dynamic compression plate based on AO/ASIF techniques. Rigid fixation and stability at proximal and distal cortical interface of host bone permitted early weight bearing and near normal function of limb immediate post surgery. Minimal post operative complications were observed.

DEMONSTRATION ON THE METHOD OF FABRICATION OF ARTIFICIAL LIMB FOR ANIMALS.

S. Nayak

Faculty of Vety. Science & A. H.,

Bhubaneswar, Orissa

DEMONSTRATION ON VARIOUS MODELS OF META-SPLINT FOR THE IMMEDIATE IMMOBILIZATION OF FRACTURED LIMB OF SMALL ANIMALS.

S. Nayak, V. S. C. Bose, S. Das & Ranbir Singh,

Faculty of Vety. Science & A. H.,

Bhubaneswar.

WILD ANIMAL SURGERY

R. R. Parsania, B. M. Jani, D. B. Patil, D. R. Barvalia, N. H. Kelawala, P. V. Parikh and J. N. Mistry.

Gujarat Agricultural University, Anand

Surgical management of following conditions is depicted.

- a) Extirpation of eyeball in a lion.
- b) Skin grafting in a tigress
- c) Large intestinal obstruction in a python.
- d) Traumatic oesophageal fistula in a python.

THERAPEUTIC EFFICACY OF AUTOGENOUS AND HOMOGENOUS SYNOVIA IN INDUCED ASEPTIC ARTHRITIS IN EQUINES :

CLINICAL AND BIOCHEMICAL STUDIES.

H. Sharma, S. K. Sharma, M. S. Kanwar, A. C. Varshney & J. M. Nigam

Department of Vety. Surgery & Radiology, Colleg of Vety. & Animal Sciences. H. P. K. V., Palampur (H.P.) 176062

Acute aseptic traumatic arthritis of radio-carpal was induced in 12 healthy adult donkeys of either sex by intra-articular injection of 0.25 ml of turpentine oil. Therapeutic efficacy of fresh autogenous and homogenous synovia, intrarticularly, was evaluated in group I and group II of 4 animals each whereas group III (4 animals) served as control. All the animals showed typical signs of acute aseptic arthritis within 1.5-4.0 hr like decreased/nil weight bearing with lameness, decreased joint flexion of affected joint with increase in the joint circumference. There was significant fall in synovia glucose concentration with an increase in the concentrations of total proteins, albumin, alkaline phosphatase and lactate dehydrogenase on 3rd post - induction day. Following administration of different therapeutic regimens on 3rd post induction

day, complete weight bearing with no lameness was observed in all the animals of group I and two animals of group II on 20th post induction day. Complete joint flexion was observed in group I animals. Synovial glucose concentration increased significantly whereas there was decrease in total proteins, albumin and LDH levels following treatments. On comparative basis therapeutic effect of autogenous synovial fluid transfusion proved to be better than homogenous synovia in acute traumatic aseptic arthritis in donkeys.

TECHNICAL SESSION III

LARGE ANIMAL SURGERY II

Chairman : Dr. J. M. Nigam

Rapporteur : Dr. A. P. Singh

CLINICAL MANAGEMENT OF URINE RETENTION IN BULLOCKS - A REPORT OF 3 CASES

*Mohinder Singh, Arvind Sharma, A. C. Varshney, S. K. Sharma and J. M. Nigam
Department of Surgery and Radiology
College of veterinary and Animal Sciences,
HPKV, Palampur - 176062*

Three adult bullocks were presented in the college clinic with the history of anorexia, suspended rumination, dribbling of urine (one case) and anuria (two cases) for the last 7-10 days. The animals were passing dry or mucous coated dung balls and had variable degree of dehydration. In the first case, severe cellulitis covering the perineal and prepuccial regions and extended beyond the xiphisternum was observed, while in the remaining two cases, there was bilateral distension of the abdomen and fluid thrill on the abdominal ballotment was noticed. On the basis of clinical, haematological and per-rectal findings, the first case was diagnosed for urethral rupture, whereas in remaining two cases, rupture of urinary bladder was

confirmed. The rupture of urethra was managed by urethral catheterisation whereas cystorraphy through left flank incision under local analgesia was attempted in bladder rupture cases. The two animals showed uneventful recovery and one died in the post operative period.

PREPUCIOTOMY FOR RETROGRADE FLUSHING OF THE URETHRAL CALCULI IN BOVINE CALVES

S. Nayak, S. Das & R. Singh

Faculty of Veterinary Science and Animal Husbandry,

OUAT, Bhubaneswar - 3

Prepuciotomy for the exteriorisation of glans penis, its catheterisation and retrograde flushing of urethra in five bovine calves has been successfully practised. Retrograde catheterisation and flushing of bovine urethra is considered to be best approach to avoid urethrotomy and urethrostomy procedures.

SUCCESSFUL SURGICAL MANAGEMENT OF URETERAL CALCULI IN A BULLOCK : A FIRST REPORT.

S. M. Usturge., B. V. Shivaprakash & B. N. Nagaraja

Department of Surgery & Radiology.

Veterinary College, Bidar.

(Karnataka)

A ten year old Deoni bullock was presented with a history of not passing urine since 5 days. Abdominocentesis revealed absence of urine in the peritoneal cavity and rectal examination revealed collapsed urinary bladder. Left flank laparotomy was performed just below the lumbar vertebrae and a large irregularly shaped calculi was removed from the right ureter. The preplaced cushioning sutures on ureter were tightened and an additional layer of lembert sutures were

placed using 4.0 chromic catgut. The left ureter was manipulated starting from hylus to urinary bladder and the urine flow was established. However the stone was not visible in left ureter. The enlarged kidneys were reduced in size with discharge of urine in the bladder. The abdominal layers were closed in a standard fashion. Cystone tablets were advised for 3 months. Two years observation revealed normal working of the bullock and no reoccurrence of calculi.

PROBLEMS WITH THE THOMAS SPLINT IN LARGE ANIMALS - A STUDY ON 20 CASES.

S. Nayak, B. Panda and J. Mohanty.

Faculty of Veterinary Science and Animal Husbandry, Orissa.

Difficulties observed during the application of modified Thomas splint in 20 cases of cattle have been noted. Steps taken to overcome such problem have been discussed.

JOINT DISARTICULATION METHOD FOR LIMB AMPUTATION AT VARIOUS LEVEL IN BOVINE PRACTICE.

S. Nayak, J. Mohanty and P. N. Mishra.

Faculty of Veterinary Science and Animal Husbandry, Orissa.

Amputation of Limb by joint disarticulation technique in bovine at different site has been described. The skin flap, ratio between the anterior and posterior ones has been evaluated. The method has been claimed as a quick and most appropriate for bovines.

COMPARATIVE STUDIES ON THE USE OF CORRUGATED DRAIN VS SURGICAL GAUZE FOR SINUS WOUND DRAINAGE IN BOVINE

B. Ramesh Kumar, R. Jayaprakash and B.

Justin William Dept of Clinics, Madras Veterinary College, Chennai - 600 007

A clinical study was conducted for comparison of surgical gauze Vs corrugated

surgical drain for better wound drainage in sinus wounds of bovine reporting at Madras Veterinary College Hospital.

Twenty four clinical cases of cattle with sinus wound located at various regions of the body were selected for the study. The animals were randomly divided into two groups comprising of twelve animals each. The wounds were irrigated with 0.5% Povidone iodine in both the groups. In group I the sinus cavity was packed with sterile absorbent surgical gauze soaked with 5% Povidone iodine. In group II The sinus cavity was fixed with a corrugated drainage sheet. The gauge dressings were changed at periodical intervals in Group I and the drainage sheet was flushed with 0.5% povidone iodine solution periodically in group II. All the animals in both groups received Streptopenecillin injection (2.5 gms/day) by parenteral route for 5 days.

In group I the drainage of exudate was poor since the surgical gauze acted as a plug preventing the flow of the contents from the sinus cavity. Periodical change of the absorbent gauze was necessary since the dressing was saturated with the exudate. The wound healing was delayed in six cases since there was persistent infection with wound discharge.

In group II all the animals except one showed satisfactory wound healing. The discharge from the wound was easily drained out and started receding by the 5th day. The wound healing was uneventful by the 7th day. One animal showed secondary myiasis due to lack of attention given by the owner. Hence the drainage sheet was removed and the wound healed after treating for myiasis.

Hence it was concluded that corrugated drainage sheets provided better drainage of exudates than conventional absorbent surgical gauze in the treatment of sinus wounds in bovine thereby making the recovery uneventful at shorter duration.

PRESERVATION OF SKIN GRAFTS IN OILS : A PRELIMINARY STUDY.

*R. R. Parsanja, N. A. Sonwane,
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Effects of preservation on the viability of skin punch grafts preserved in different oils at room temperature (12-36°C) and refrigeration temperature (4°C) was studied. Evaluation of viability was examined histomorphologically and by autotransplantation. Histomorphologically, viability of preserved punch grafts after 24 hours, and 7, 14, 21, 28, 45 and 60 days period revealed that, all room temperature preserved grafts having excellent viability upto 2 to 3 weeks and it subsequently reduces to fair at 60 days. Clinical "take" of autotransplanted grafts at 14, 28, and 45 days interval at room and refrigeration temperature revealed excellent to best acceptance of grafts.

EFFECTS OF PRESERVATION ON VIABILITY OF SKIN GRAFTS IN HONEY AT DIFFERENT TEMPERATURES.

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Histomorphological examination and autotransplantation after skin punch grafts preserved in honey at room temperature (12-

36°C) and refrigeration temperature (4°C) was studied up to 60 days. Viability of grafts was evaluated by histomorphological examination and autotransplantation. Histomorphologically, viability of preserved punch grafts after 24 hours and 7, 14, 21, 28, 45 and 60 days period revealed that, all grafts preserved at room temperature recorded excellent viability at 24 hours, further best viability was recorded at 21 days, whereas at 45 days viability was good and subsequently it reduces to fair at 60 days. Grafts preserved at refrigeration temperature revealed excellent viability at 24 hours while best viability was observed at 28 days and subsequently was observed good at 60 days period. Clinical "take" of autotransplanted grafts at 14, 28 and 45 days intervals at room and refrigeration temperature revealed excellent to best acceptance of grafts.

CRYOPRESERVATION OF SKIN GRAFTS IN LIQUID NITROGEN : A PRELIMINARY STUDY.

*R. R. Parsania, N. A. Sonwane,
P. V. Parikh, D. R. Barvalia, and
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The study of viability after cryopreservation (-196°C) of skin punch grafts was performed. The grafts were preserved into different concentrations of glycerol and dimethyl sulphoxide (DMSO) in honey viz. 15%, 25%, 50%, 75%, 90% and 100% concentrations. Evaluation of viability was recorded by histomorphological examination and autotransplantation. Histomorphologically, viability after 24 hours and 7, 14, 21, 28, 45 and 60 days period of preservation revealed excellent viability in glycerol 25% 75% and 90% and in 25% concentration of DMSO. The

best viability was recorded at 15%, 50%, 75% and 100% concentration with DMSO at all the intervals up to 60 days period. Clinical "take" of autotransplanted grafts at 14, 28, and 45 days intervals revealed excellent to best acceptance of grafts.

PRE AND POST OPERATIVE MANAGEMENT OF EQUINE PATIENTS

B. Sridhar,

Sr. Veterinary Officer, Hyderabad Race Club.

On an average about 180 horses have been successfully operated under general anaesthesia every year in the past 10 years without complications at the Equine Hospital, Hyderabad Race Club. These operations included Castrations, Orthopaedic operations (removal of chip fractures from fetlock, knee and hock joints, superior check ligament desmotomy and tendon splitting for tendon break down), ENT operations (Ventriculectomy, staphylectomy, operations for soft palate dislocation, epiglottic entrapment, wind sucking and crib biting) and treatment for corneal ulcer.

Padded general anaesthesia induction and recovery room is a must to prevent injuries during induction and recovery. Preoperative antibiotics and preoperative preparation of the site is very important to prevent infection and also to prevent contamination of the operation theatre. This also minimises unnecessary lengthy general anaesthesia. Every person in the theatre must wear face masks. All the required instruments and medicines must be instantly available.

During postoperative management, contamination of surgical wound must be avoided. All aseptic precautions followed preoperatively must also be followed postoperatively. Cleanliness of the environment plays a vital role in preventing postoperative infections.

The successful outcome of any operation depends primarily on proper

guidance and advice given to the owner/trainer of the horse and close monitoring of the case.

AWARD SESSION

Young Surgeon Award

Dr. M.R. Patel Award

TECHNICAL SESSION IV

ANAESTHESIOLOGY

Chairman : Dr. A.K. Mitra

Rapporteur : Dr. S. Thilagar

BIOCHEMICAL CHANGES INDUCED BY EPIDURAL XYLAZINE / DETOMIDINE WITH OR WITHOUT LOCAL ANAESTHETICS IN CSF OF BUFFALOES.

S.K. Tiwari, Amresh Kumar, N.S. Jadon and P.V. Parikh G.B. Pant University of Agriculture and Technology Pantnagar (U.P.) Distt. Nainital 263145

Epidural administration of xylazine (@0.10mg/kg) or detomidine (@50ug/kg) with or without lignocaine (@ 0.22 mg/kg) or bupivacaine (0.11 mg/kg) in 35 healthy male buffalo calves of 1 to 1½ years age caused a significant (p/0.01) increase in CSF glucose, globulin, urea nitrogen and sodium levels and a significant (p/0.01) decrease in CSF potassium and chloride levels. These values however were compensated within 2 to 24 hours, CSF enzymes viz, ALT, AST, AP and GD were non - significantly affected in all the groups of animals.

EFFECT OF ATIPAMEZOLE AND YOHIMBINE REVERSAL ON BLOOD BIOCHEMICAL CONSTITUENTS AFTER EPIDURAL XYLAZINE OR DETOMIDINE INJECTION IN BUFFALOES.

S.K. Tiwari and Amresh Kumar G.B.Pant University of Agriculture and Technology Pantnagar Distt- Nainital (U.P.) 263145

Epidural administration of xylazine (@ 0.10 mg/kg) or detomidine (@50 ug/kg) in 30

90min. in both the groups. There was no significant change in the rectal temperature in the animals of group I and a fall in rectal temperature was recorded in group II. It is concluded that the combination produced excellent surgical analgesia of hind quarter and flank in buffalo calves.

EPIDURAL XYLAZINE AND MEDETOMIDINE IN BUFFALO CALVES

K. Pratap, A. Amarpal, and P. Kinjavdekar

Division of Surgery,

Indian-Veterinary Research Institute,

Izatnagar, U.P.-243122

The experimental study was carried out

in 10 buffalo calves of 6-8 months of age

divided in two groups, I and II. In group I,

xylazine at the dose rate of 0.1mg/kg body

wt and in group II, medetomidine @ 10ug/kg

body wt was injected at lumbosacral epidural

space under aseptic conditions. Sedative and

analgesic effects were recorded at different

intervals up to 120 min.

There was significant reduction in heart

and respiration rate for a short duration in

group I. However, heart and respiratory rate

decreased between 20-90 min in group II.

Fall in rectal temperature was noted for a

longer duration in group I and there was no

significant change in the animals of group II.

Onset of analgesia was recorded within 2-12

min in all the animals of group I, however, it

was 14 min in group II. Excellent analgesia of

tail, perineum hind limb, flank and ventral

abdomen was observed for 60-75 min in three

animals and 90-120 min in two animals in

group I. Moderate analgesia of tail, perineum,

hind limb and flank was recorded between 20

and 120 min in group II. Sedation was

moderate in group I and mild in group II. The

study suggested that epidural xylazine

produces surgical analgesia and

medetomidine produces moderate degree of

hind quarter analgesia.

healthy buffalo calves caused significant increase (p/0.01) in serum glucose, urea nitrogen and sodium level and a significant (p/0.01) decrease in total proteins, globulin, potassium and chloride level in all the groups of animals except control. Administration of yohimbine (@ 0.125 mg/kg I.V.) or atipamezon or detomidine sedation, effectively reversed their sedative effects and caused an early return of these biochemical parameters to their preadministration level within 15 to 60 minutes.

EPIDURAL ANALGESIA WITH MEDETOMIDINE AND KETAMINE IN BUFFALO CALVES.

K. Pratap, P. Kinjavdekar, Amarpal

Division of Surgery, Indian Veterinary

Research Institute, Izatnagar, "243122, U.P.

Ten buffalo calves, aged 6-8 months

were used for the study in two groups I and

II, having 5 animals each. In group I,

medetomidine @ 10ug/kg and in group II,

medetomidine (10ug/kg) and ketamine (1mg/

kg) were administered at the lumbosacral

epidural space. Analgesia, sedation, and

different physiological parameters were

recorded upto 120 minutes.

The onset of analgesia was 14 min. in

group I and 6 to 12 min. in group II. Moderate

analgesia of flank, hind limbs, perineum, tail

was recorded between 20 and 120 min in group

I. Surgical analgesia of tail, perineum, hind

limb and flank was recorded from 10-15 min.

at the end of observation period. Moderate

analgesia of thorax and abdomen was also

recorded in group II. The animals of group I

remained standing throughout the period of

observation. Severe incoordination and sternal

recumbency was recorded in group II. Sedation

was mild in both the groups. Heart rate

decreased between 20 to 90 min. in group I.

However, it decreased between 10 to 75 min.

in group II. Respiratory rate showed a fall upto

90min. in both the groups. There was no significant change in the rectal temperature in the animals of group I and a fall in rectal temperature was recorded in group II. It is concluded that the combination produced excellent surgical analgesia of hind quarter and flank in buffalo calves.

EPIDURAL XYLAZINE AND MEDETOMIDINE IN BUFFALO CALVES

K. Pratap, A. Marpal, and P. Kinjavdekar

Division of Surgery,

Indian-Veterinary Research Institute,

Izatnagar, U.P.-243122

The experimental study was carried out in 10 buffalo calves of 6-8 months of age divided in two groups, I and II. In group I, xylazine at the dose rate of 0.1 mg/kg body wt and in group II, medetomidine @ 10ug/kg body wt was injected at lumbosacral epidural space under aseptic conditions. Sedative and analgesic effects were recorded at different intervals up to 120 min.

There was significant reduction in heart and respiration rate for a short duration in group I. However, heart and respiratory rate decreased between 20-90 min in group II. Fall in rectal temperature was noted for a longer duration in group I and there was no significant change in the animals of group II. Onset of analgesia was recorded within 2-12 min in all the animals of group I, however, it was 14 min in group II. Excellent analgesia of tail, perineum hind limb, flank and ventral abdomen was observed for 60-75 min in three animals and 90-120 min in two animals in group I. Moderate analgesia of tail, perineum, hind limb and flank was recorded between 20 and 120 min in group II. Sedation was moderate in group I and mild in group II. The study suggested that epidural xylazine produces surgical analgesia and medetomidine produces moderate degree of hind quarter analgesia.

healthy buffalo calves caused significant increase (p/0.01) in serum glucose, urea nitrogen and sodium level and a significant (p/0.01) decrease in total proteins, globulin, potassium and chloride level in all the groups of animals except control. Administration of yohimbine (@ 0.125 mg/kg I.V.) or atipamezon or detomidine sedation, effectively reversed their sedative effects and caused an early return of these biochemical parameters to their preadministration level within 15 to 60 minutes.

EPIDURAL ANALGESIA WITH MEDETOMIDINE AND KETAMINE IN BUFFALO CALVES.

K. Pratap, P. Kinjavdekar, A. Marpal

Division of Surgery, Indian Veterinary

Research Institute, Izatnagar, "243122, U.P.

Ten buffalo calves, aged 6-8 months were used for the study in two groups I and II, having 5 animals each. In group I, medetomidine @ 10ug/kg and in group II, medetomidine (10ug/kg) and ketamine (1mg/kg) were administered at the lumbosacral epidural space. Analgesia, sedation, and different physiological parameters were recorded upto 120 minutes.

The onset of analgesia was 14 min. in group I and 6 to 12 min. in group II. Moderate analgesia of flank, hind limbs, perineum, tail was recorded between 20 and 120 min in group I. Surgical analgesia of tail, perineum, hind limb and flank was recorded from 10-15 min. till the end of observation period. Moderate analgesia of thorax and abdomen was also recorded in group II. The animals of group I remained standing throughout the period of observation. Severe incoordination and sternal recumbency was recorded in group II. Sedation was mild in both the groups. Heart rate decreased between 20 to 90 min. in group I. However, it decreased between 10 to 75 min. in group II. Respiratory rate showed a fall upto

healthy buffalo calves caused significant increase ($p/0.01$) in serum glucose, urea nitrogen and sodium level and a significant ($p/0.01$) decrease in total proteins, globulin, potassium and chloride level in all the groups of animals except control. Administration of yohimbine (@ 0.125 mg/kg I.V.) or atipamezon or detomidine sedation, effectively reversed their sedative effects and caused an early return of these biochemical parameters to their preadministration level within 15 to 60 minutes.

EPIDURAL ANALGESIA WITH MEDETOMIDINE AND KETAMINE IN BUFFALO CALVES.

*K. Pratap, P. Kinjavdekar, Amarpal
Division of Surgery, Indian Veterinary
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Ten buffalo calves, aged 6-8 months were used for the study in two groups I and II. having 5 animals each. In group I. medetomidine @ 10ug/kg and in group II, medetomidine (10ug/kg) and ketamine (1mg/kg) were administered at the lumbosacral epidural space. Analgesia, sedation, and different physiological parameters were recorded upto 120 minutes.

The onset of analgesia was 14 min. in group I and 6 to 12 min. in group II. Moderate analgesia of flank, hind limbs, perineum, tail was recorded between 20 and 120 min in group I. Surgical analgesia of tail, perineum, hind limb and flank was recorded from 10-15 min. till the end of observation period. Moderate analgesia of thorax and abdomen was also recorded in group II. The animals of group I remained standing throughout the period of observation. Severe incoordination and sternal recumbency was recorded in group II. Sedation was mild in both the groups. Heart rate decreased between 20 to 90 min. in group I. However, it decreased between 10 to 75 min. in group II. Respiratory rate showed a fall upto

90min. in both the groups. There was no significant change in the rectal temperature in the animals of group I and a fall in rectal temperature was recorded in group II. It is concluded that the combination produced excellent surgical analgesia of hind quarter and flank in buffalo calves.

EPIDURAL XYLAZINE AND MEDETOMIDINE IN BUFFALO CALVES

*K. Pratap, Amarpal, and P. Kinjavdekar
Division of Surgery,
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The experimental study was carried out in 10 buffalo calves of 6-8 months of age divided in two groups, I and II. In group I, xylazine at the dose rate of 0.1mg./kg body wt and in group II, medetomidine @ 10ug/kg body wt was injected at lumbosacral epidural space under aseptic conditions. Sedative and analgesic effects were recorded at different intervals up to 120 min.

There was significant reduction in heart and respiration rate for a short duration in group I. However, heart and respiratory rate decreased between 20-90 min in group II. Fall in rectal temperature was noted for a longer duration in group I and there was no significant change in the animals of group II. Onset of analgesia was recorded within 2-12 min in all the animals of group I, however, it was 14 min in group II. Excellent analgesia of tail, perineum hind limb, flank and ventral abdomen was observed for 60-75 min in three animals and 90-120 min in two animals in group I. Moderate analgesia of tail, perineum, hind limb and flank was recorded between 20 and 120 min in group II. Sedation was moderate in group I and mild in group II. The study suggested that epidural xylazine produces surgical analgesia and medetomidine produces moderate degree of hind quarter analgesia.

CLINICO- PHYSIOLOGICAL EFFECTS OF EPIDURAL XYLAZINE AND DETOMIDINE IN BUFFALO CALVES

*K. Pratap, Amarpal and P. Kinjavdekar
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Research Institute, Izatnagar, UP-243122*

The study was carried out in 10 buffalo calves of 6-8 months of age divided in two groups, I and II. In group I, xylazine @ 0.1mg/kg body wt and in group II, detomidine @ 200 ug/kg body wt was injected at lumbosacral epidural space. Analgesic, sedative and physiological effects were recorded at different intervals up to 120 min.

Onset of analgesia was within 2-12 min in group I and 5-11 min in group II. Xylazine produced excellent analgesia of tail, perineum hind limb, flank and ventral abdomen for 60-75 min in three animals and 90-120 min two animals. Detomidine produced moderate analgesia of hind limbs, tail and perineum for 45-90 min in three animals and 20-30 min in two animals. Sedation was moderate in group I and mild in group II. All the animals of both the groups remained in standing position throughout the period of observation, There was significant reduction in heart and respiratory rates for a short duration in both the groups. Fall in rectal temperature was for a longer duration in group I and no significant change in group II. The study suggested that xylazine produces surgical analgesia and detomidine produces moderate analgesia of hind quarters after epidural administration.

CENTBUCRIDINE HYDROCHLORIDE AS AN EPIDURAL ANAESTHETIC IN CATTLE : CLINICAL AND BIOCHEMICAL STUDIES.

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Six healthy cross bred male cow calves were subjected to six treatments. Treatment I included administration of centbucridine @ 0.3 mg/kg b.wt., treatment II- centbucridine @ 1.0 mg/kg b.wt., treatment III- Triflupromazine @ 0.2 mg/kg b.wt. + centbucridine as in treatment I, treatment IV- triflupromazine @ 0.2 mg/kg b.wt.+ centbucridine as in treatment II, treatment V -chlorpromazine @ 1.0 mg/kg b.wt.+ centbucridine as in treatment I, treatment VI- chlorpromazine (as in treatment V)+ Centbucridine (as in treatment II). The dose applied for treatments, I, III and V induced low epidural while in treatments II, IV and VI produced high epidural anaesthesia. The clinical and biochemical studies were carried out in each animal. The blood samples for biochemical estimation were collected at 0 hour prior to treatment, and at 1,3,6,12,24,48,72 and 96 hours post treatment.

In low epidural anaesthesia, the time for onset of anaesthesia was 16.70 ± 0.37 , 15.80 ± 0.26 and 15.00 ± 0.34 minutes respectively in treatments I, III and V, whereas, in high epidural anaesthesia the time for onset of anaesthesia was 25.55 ± 0.32 , 24.83 ± 0.06 and 23.33 ± 0.19 minutes for treatments II, IV and VI respectively. The duration of anaesthesia in treatments I, III & V was 132.50 ± 2.56 , 150.00 ± 4.79 , 177.20 ± 2.20 minutes respectively. While in II, IV & VI it was 199.93 ± 1.82 , 138.85 ± 2.27 and 129.12 ± 1.40 minutes, respectively.

Significant increase in blood glucose, SGOT, serum alkaline phosphatase, icteric index, blood urea nitrogen and blood creatine was observed at different intervals in all the three treatments of low and high epidural anaesthesia. These significantly increased value of different biochemical parameters returned near to control values either at 72 or 96 hours post treatment.

PREEMPTIVE ANALGESIA WITH EPIDURAL LIGNOCAINE & PATHIDINE FOR THE MANAGEMENT OF POST-OPERATIVE PAIN IN DOGS.

*Hans Raj. Amrpal. G.R. Singh and H.P. Aithal
Division of Surgery Indian veterinary
Research Institute Izatnagar (UP) - 243122*

The study was conducted on 12 adult mongrel dogs of 13- 22 kg of weight. the animals were divided into three equal groups of 4 animal each. For experimental creation and repair of tibial fracture using cross pinning, the animals of different groups were given different analgesic/ anaesthetic treatments. In all the animals atropine (0.045 mg/ kg) and triflupromazine (1mg/kg IM) were given. After a gap of 10 min. , normal saline (2ml), lignocaine (4 mg/kg) and pethidine (2 mg/kg) were given epidurally at lumbosacral space in animals of groups I,II and III, respectively. General anaesthesia was then induced and maintained with 2.5% sol. of thiopental sodium. All the animals were operated for the same procedure by the same team of the surgeons to minimise the effect of various variables.

The animals were observed for wound hyperalgesia swelling and movement associated pain for 7 post-operated days. Data was analysed using Mann Whitney test. Minimum, wound hyperalgesia was recorded in animals of group III (pethidine) which was always significantly (<0.05) lesser than control upto the end of observation. Similarly, post operative swelling and movements associated pain were reduced in animals of group II and III. However, better effect was observed in animals of group III. It was concluded that both lignocaine and pethidine can reduce the post operative morbidity if given epidurally before the start of tibial fracture repair in dogs.

MEDETOMIDINE AS AN IMMOBILIZING AGENT IN ELEPHANTS AND ITS REVERSAL BY ATIPAMEZOLE

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The effects of Medetomidine as an immobilizing agent were examined in ten captive elephants of both sexes and various age groups. The drug was injected I.M. @ 5ug/kg body weight and its effects were observed at 6.01+ 2.10 minutes post injection. Shifting of weight bearing on limbs was noted initially. Movement of tail, ear and trunk were absent at 20-30 minutes and subsequently the trunk touched the ground, relaxed and complete loss of movement occurred. The ears dropped forward with the head tilted to one side downward. All the elephants snored with moderate to high tone. The penis protruded in males and clitoris relaxed in females. In the peak of sedation, one elephant went on lateral recumbancy at 35th minute with total relaxation. At peak sedation in all elephants, pulse rate decreased significantly ($P<0.05$) from 36 ± 1.09 to 18 ± 1.68 causing severe bradycardia. Respiration decreased significantly ($P<0.05$) from 11 ± 1.21 to 6 ± 0.09 per minute with nonsignificant ($P<0.05$) reduction of rectal temperature from 96 ± 0.06 to 95 ± 0.023 o F. Sufficient sedation, analgesia and relaxation were observed and no fatality occurred. During peak sedation, Atipamezole was injected @ 10 ug/kg body weight I.V. into the ear vein. The drug was effective in reversing the effects and the elephants regained normalcy, with movement of trunk, tail and ear at 2 ± 1.01 minutes of Atipamezole injection. Immediately thereafter, mobility started with searching of food. Heavy urination following Atipamezole reversal was noted in all the elephants.

COMPARATIVE STUDY OF MEDETOMIDINE WITH XYLAZINE IN COW CALVES. - AN EXPERIMENTAL STUDY.

V.P. Chopade, B. M. Gahlod, S.S. Marudwar, S.N. Patil and M.S. Dhakate.

The present experiment was undertaken to compare the effect of medetomidine at two different dose level with xylazine in cow calves.

Eighteen clinically healthy male calves were randomly divided into three groups, A, B, & C. All the animals were administered with atropine sulphate (@0.05 mg/- kg. b.w.). After 15 minutes of atropinisation, medetomidine 15ug/k.g. b.w. and 20 ug/kg b.w. was administered intramuscularly in animals of groups A and B respectively and xylazine was administered @ 0.20 mg/kg b/w. in animals of groups @ C.

Animals were observed for weak time, down time, sleep time, recovery time, analgesia, sedation, surgical anaesthesia and muscle relaxation. Other parameters were studied viz. Heart rate, respiration rate, ruminal motility, rectal temperature, CRT and ECG. Haematological parameters included TLC, TEC & DLC and biochemical parameters such as blood glucose and SGOT were recorded before and after the administration of drug under study.

The weak time (2.30+0.19 min) was significantly lesser in group C as compared to group A & B (8.33± 0.69 min) and 7.08 ± 1.04 min). Similarly down time was significantly lesser in group C as compared to animals of group A & B. Animals of group B Showed more sleep time (116.16 ± 14.66 min) as compared to group A and C. Medetomidine at both dose regimen produced surgical anaesthesia (16.66 ± 0.95 min and 23.83 ± 2.24 min) of shorter duration as compared to xylazine treated group (53.5 ±

3.69 min). Besides this, remaining physiological parameters found to be dose dependant for medetomidine group. Marked hyperglycemia was recorded from 30 to 180 minutes in group B and C and upto 120 minute in group A. Significant increase in (SGOT) enzymatic activity was recorded at 60 minute in medetomidine group while at 30 minute in xylazine group. A significant lymphocytopenia with corresponding neutrophilia was observed in all groups. Alteration observed in ECG pattern in all the groups were off transient duration as almost normal ECG recorded at 180 minute of observation.

EFFECT OF EPIPLEURAL BLOCKADE IN ASPIRATORY PNEUMONIA IN BUFFALO CALVES

Neeraj Tripathi, N.S. Jadon and Amresh Kumar Department of Surgery and Radiology, College of Veterinary Sciences, G.B.Pant Univ. of Agri. & Tech. Pantnagar - 263145 (U.P.)

Aspiratory pneumonia was produced by intratracheal administration of 100 ml of whole milk in 12 healthy buffalo calves 10 months to 11/2 year old. They were divided into groups of six number of animals. The animals of group 1 were subjected to 1 gm of streptopenicillin intramuscularly for 10 days and prednisolone 30 mg for 6 days while the animals of group were subjected to treatment as given in group 1 and bilateral epipleural blockade with 0.5 procaine hydrochloride 10 ml on each side on alternate days repeated for 4-5 times. The efficacy of treatment was assessed by observing clinico physiological, haematological and blood biochemical parameters. It was revealed that epipleural blockade resulted in significantly early and complete recovery of calves suffering with aspiratory pneumonia and also early return of haematological and biochemical parameters.

CLINICAL USE OF SPINAL XYLAZINE AND KETAMINE IN RUMINANTS.

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Xylazine and ketamine were administered spinally in thirty two clinical cases. The cases included 19 goats (femur fracture - 6, cystoplasty-7, urethrotomy-1, rumenotomy-4, neurorrhaphy-1) and 13 cow calves (Umbilical hernia-1, tenorrhaphy-12). Standard surgical procedures were adopted in all the animals under regional analgesia using xylazine (0.05 mg/kg body wt.) and ketamine (2.5 mg/kg body wt.) administered simultaneously into the lumbosacral subarachnoid space.

The onset of analgesia was within 1-2 min. after injection. All the animals showed incoordination and later on gained sternal recumbency. The depth, extent and duration of analgesia was adequate to conduct various surgical operations. No additional dose of anaesthetic was required. It is concluded that the combination of spinal xylazine and ketamine produce excellent analgesia of hind quarters, flank, perineum and abdomen and is safe to use.

EFFECT OF SUBARACHNOID XYLAZINE AND MEDETOMIDINE ON HAEMODYNAMICS AND ECG IN GOATS

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Alpha-2 agonists viz. xylazine and medetomidine were evaluated on the basis of their effects on haemodynamic parameters in

6 adult goats. Xylazine (0.05 mg/kg body wt) and medetomidine (0.01 mg/kg body wt.) were administered in the lumbosacral subarachnoid space. Arterial blood pressure (ABP), Central Venous Pressure (CVP) and electrocardiograms (ECG) were monitored before and after 5, 10, 15, 20, 30, 45, 60, 75, 90, 105 and 120 min. post injection.

Xylazine and medetomidine produced significant and comparable degree of decrease in arterial blood pressure in the post injection period. However, Central Venous Pressure increased during this period. The ECG changes produced by these drugs were bradycardia and increased PR and QT - intervals. The study suggests that both the alpha-2 - agonists depress the haemodynamic parameters and produce comparable degree of effects after their subarachnoid administration.

THERAPEUTIC EFFICACY OF REGIONAL BLOCKADE IN CYSTITIS IN BOVINES

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Twenty healthy buffalo calves, ten to fifteen months of age weighing 80 to 130 kg. were divided into five groups comprising of four animals each. Cystitis was experimentally created by administering 50 ml of 0.1% salicylic acid in ethanol followed by staphylococcus aureus infection directly into the urinary bladder. The animals of group I served as control were given antibiotic treatment. Presacral and pelvic plexus blocks using 0.5% lignocaine hydrochloride solution and antibiotic was used in animals of group II and III respectively. The animals of groups IV & V, were treated by presacral and pelvic plexus blocks alone respectively.

The animals of group I showed marked changes in various haematological and biochemical parameters viz. elevated BUN, creatinine, total erythrocytes, leucocytes, neutrophils with haemolysed urine on 2nd day after cystitis infection which returned near normal level by 13th day. Whereas the return of these parameters towards normal was seen by 7th day in animals of groups II and III. The animals of groups IV and V could not attain the normal biochemical values even upto 18th day. Presacral and pelvic plexus block with 0.5 % Lignocaine hydrochloride alongwith antibiotics resulted in quick recovery of the animals suffering from cystitis.

THERAPEUTIC EFFICACY OF REGIONAL BLOCKADE IN BOVINE NEPHRITIS

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Twenty healthy buffalo calves, ten to fifteen months of age, and weighing 80 to 130 kg. were divided into five groups comprising of four animals each. Nephritis was experimentally created by injecting 1% solution of uranyl nitrate @ 5mg/kg body weight intravenously. The animals of group I served as control. Epipleural and paranephric block using 0.5% lignocaine hydrochloride solution and antibiotic was used in animals of group II and III respectively. The animals of group IV and V were treated by epipleural and paranephric nerve plexus blocks alone respectively.

The animals of group I showed significant changes in various haematological and biochemical parameters viz. elevated BUN, creatinine, total erythrocyte, leucocyte, neutrophil with increased SGTP enzyme in

urine on 3rd day after nephritis which returned to near control level by sixteenth day. Whereas the return of these parameters towards normal was seen by 8th day in animals of group II and III. The animals of group IV and V could not attain the normal biochemical values even upto 21th day though apparently the animals appeared normal. Epipleural and paranephric blocks with 0.5% lignocaine hydrochloride with medicinal treatment resulted in early recovery of the animals suffering from nephritis.

CLINICAL AND PHYSIOLOGICAL EFFECTS OF ELECTROACUPUNCTURE ANAESTHESIA FOR NECK AND THORACIC SURGERY IN DOGS

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Twelve healthy dogs of either sex, 9 months 3 years old, weighing from 9-15 kg were randomly divided into three groups and were given electrostimulation of acupoints GV-20, LU-1, LIV-14, TW-8, HC-4 and CV-4 (Group-I) GV-20 LU-1, LIV-14 TW-8, HC-4, CV-4 and LI-14 (Group -II) and GV-20 with auricular acupoints :Lung-1 thoracic analgesia area and Heavenly gate (Group-III). Excellent analgesia was obtained in the dorsal aspect of neck in the animals of group II and ventral aspect of thorax in the animals of group II and ventral aspect of thorax in the animals of group III. Good analgesia was produced in latero- dorsal and ventral aspects of neck in groups I and III and the dorsolateral, lateral and ventral aspects of thorax in the animals of groups II and III. No desensitization was produced on the dorsal aspect of thorax in any group of animals. Surgical manoeuvres namely, incision followed by suturing, repairing experimental wounds and tubular skin grafting were successfully performed.

The outset of anaesthesia occurred in 18.67+0.72 minutes in the animals of group III, 22.33+1.29 minutes in animals of group-I and 23.67+0.72 minutes in the animals of group -II with a mean onset time of 21.44+1.31 minutes. Anaesthesia remained as long as stimulation of the acupoints continued in the neck and thoracic regions of dogs. The complete recovery from acupuncture analgesia occurred in 8.67+0.72 minutes in the animals of group I, 9.67+0.72 minutes in group-II and 15+0.94 minutes in group III with mean recovery time of 11.11+1.60 minutes. The electro stimulation of the said acupoints caused a significant (P/ 0.05) tachycardia, techypnoea and increase in rectal temperature whereas, no significant (P/ 0.05) effects were observed on tidal volume, minute volume, central venous pressure and the electrocardiogram during electroacupuncture anaesthesia.

STIMULATION OF ANTIBODY RESPONSE BY ELECTROACUPUNCTURE IN ARTHRITIC BUFFALO CALVES

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Twenty four clinically healthy male buffalo calves, aged between 12 and 18 months were vaccinated with H. S. broth vaccine P.multocidap 52 strain just before the experimental induction of acute aseptic arthritis by injecting turpentine oil (0.1 ml in the left radiocarpal joint. These calves were then divided into four equal groups (n-6) viz., A,B,C & D. No treatment was given in the animals of group A. In groups B&C, electrostimulation of acupoints viz 106, 111, 112, 113, 114, & FL3 (Chon Shu), FL5 (Wan Hou), FL6 (Hsi Yen) and FL7 (Hsi Mai),

respectively, was done whereas in group D, dexamethasone (4mg) was administered intrarticularly along with topical application of dimethyl sulphoxide on 5th and 12th post induction day. All the animals were bled on day "O" (pre-induction) and on day 5, 12 and 19 post vaccination. Sera, thus collected were subjected to indirect plate ELISA to monitor the humoral immune response.

Immunomodulatory effect of electroacupuncture was reflected by an increased in antibody titre which peaked to the tune of 1:64000 in group B, 1:400 in group C and 1:200 in groups A& D, respectively.

MODIFICATION OF SURGERY INDUCED STRESS RESPONSE WITH NEURAXIAL BLOCKADGE IN DOGS.

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Twelve adult mongrel dogs of either sex were divided into three groups of 4 animals each for creation and repair of experiment tibial fracture using cross pinning different anaesthetic/ analgesic techniques were used in animals of different groups. Atropine sulphate(0.045mg/kg) after 10 min, by triflupromazine Hcl (1mg/kg im) were given in animals of all the groups. Ten min. later epidural normal saline. lignocaine and pethidine were given at lumposacral space in animals of groups I, II and III , respectively. Anaesthesia was then induced and maintained with 2.5% thiopental sodium in all the animals. To minimise the variation in technique and duration, all the operations were conducted by same team of surgeons.

Venous blood samples were collected in the morning at 8:00 AM on the day of operation, just after induction of anaesthesia,

after completion of surgery, and 6,24 and 48 hrs post operatively, The blood so collected was used for estimation total leukocytes, and plasma glucose, cholesterol and cortisol using standard techniques. Stress induced increase in TLC glucose and cortisol and decrease in cholesterol were lesser in treatment groups. The study indicated that epidural use of lignocaine and pethidine when given pre-operatively can reduced the surgical stress in dogs operated for tibial fracture repair.

REPAIR OF AURAL HAEMATOMA UNDER XYLAZINE - KETAMINE ANAESTHESIA IN A CUB.

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A female lion cub of 2 1/2 months of age and 10 kg. of weight was brought to the clinics for surgical repair of aural haematoma. The animal was anaesthetized by intramuscular administration of mixture of xylazine (4mg/kg) and ketamine (4mg./kg). Surgical anaesthesia was achieved in 7 min. The haematoma was incised and the sutures were applied after re,oval of the fluid. Sitting removery was recorded in 45 min. Animal recovered uneventfully.

EFFECT OF HYPOTHERMIA AN PHYSIOLOGICAL AND HAEMATO-BIOCHEMICAL PARAMETERS DURING CARDIOPULMONARY BYPASS IN DOGS

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Twenty four healthy mongrel dogs of either sex were subjected to two levels of

hypothermic temperature (20°C and 25°C) (n=12) during Cardiopulmonary bypass to study the effect of hypothermia on physiological and heamato-biochemical Parameters. The experimental dogs were connected to ventilator before Median Sternal Thoracotomy. The anterior and Posterior Vena Cavae were Cannulated for Venous drainage and the ascending aorta was Cannulated for arterial perfusion. The animals were then connected to the Cardiopulmonary bypass unit. While on Cardiopulmonary bypass the systemic temperature was reduced either to 20°C or 25°C with the help of a heat exchanger. After Achieving 20°C / 25°C systemic hypothermia, the aorta was Gross Clamped and Sanguineous Cardioplegic solution Cooled to 4°C was administered into aortic root to achieve Cardioplegia. Hypothermia at 20°C or 25°C was maintained with Cardioplegia for 30 minutes.

After releasing the aortic Cross Clamp rewarming was initiated to achieve an oesophegeal Temperature of 38°C. The animals were weaned from Cardiopulmonary bypass and the thorax was closed. The animals were maintained till they regained normal physiological body temperature. The Changes in Physiological, haemological and biochemical Parameter were studied at various stages of the experiment.

The time taken for Cooling and rewarming in 20°C hypothermia group was higher. A decrease in the packed cell volume, Red blood cell Count, white blood cell count and Platelets count was higher in 20°C hypothermia group then 25°C hypothermia group. Increase in Blood glucose, blood urea Nitrogen with a decrease in the Plasma Potassium level during Cooling was comparatively lesser in 25°C hypothermia group.

TECHNICAL SESSION V

RADIOLOGY AND ALLIED

Chairman : Dr. S.C. Ojha

Rapporteur : Dr. T.N. Ganesh

RADIONUCLIDE BONE SCAN: SENSITIVE TOOL FOR DIAGNOSIS AND MANAGEMENT OF CANINE BONE DISORDERS.

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Bone scan is simple non-invasive procedure and extremely sensitive for lesion detection. It has physiological basis and also provides structural information, besides imparting lesser radiation dose than X-ray and CT scan. It helps directly in prognosis and management of bone diseases.

Three cases were referred for bone scan with painful swelling and lameness suspected for bone malignancy to know more about vascularity, metabolic rate, size of lesion and metastasis. Bone scan was performed by intravenous administration of ^{99m}Tc -MDP, a bone specific radiopharmaceutical under a gamma camera. Early blood flow studies were acquired at the rate of a second per image. After four hours whole body skeletal survey was done.

Blood flow study indicated the vascularity of the lesion as highly vascular, hypo/hyper-perfused and avascular according to a nature of the lesion. Skeletal survey revealed increased abnormal concentration at primary site in two cases along with vertebral column, transverse process of vertebra, ribs, skull and kidney suggestive of metastasis. In one case there was a reduced uptake at the

primary lesion and generalised increased uptake of affected bone because of pathological fracture and callous formation indicating chronic osteomyelitis.

Benefit of surgery was ruled out in two cases with metastatic lesion and in third case amputation was advised. Bone scintigraphy thus proved to be of diagnostic as well as prognostic help.

ULTRASONOGRAPHIC DIAGNOSIS OF CRYPTORCHIDISM AND ITS SURGICAL MANAGEMENT IN TWO CLINICAL CASES.

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Sciences.*

Two clinical cases of cryptorchidism were taken up by the department for Surgical management. One German shepherd male dog aged 13 months and one Lhasa Apsso male dog aged 8 months were subjected to ultrasonography following detailed clinical examinations. In the G.S.D. male the testes were in the abdominal cavity and in the Lhasa Apsso male they were lying in the inguinal canal close to the external rings. Cryptorchidectomy was done in the G.S.D. male and Orchidopexy was done in the Lhasa Apsso male for either testis.

CLINICAL EVALUATION OF INTRAVASCULAR CONTRAST AGENTS AND ITS EFFECT ON HISTAMINE RELEASE IN DOGS

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Radiographic contrast media (RCM) can develop anaphylactoid reactions in certain

cases similar to that produced by histamine. The aim of the present study is to see the effects of two conventionally used pyelographic agents sodium and meglumine diatrizoate (Urografin 76%) and sodium iothalamate (conray-420, 70% W/V) on histamine release and on heart and respiratory rates in a group of 24 mongrel dogs of either sex between one to one and a half years of age which were divided into two equal groups A & B. Each group was further subdivided into three subgroups. Urografin and conray were administered intravenously in the animals of group 'A' and 'B' respectively at the dose rate of 1ml, 2ml and 4ml per kg. body weight in the animals of three sub groups of respective group.

A significantly higher plasma histamine level was observed in all groups of animals starting from 5th post-injection minute which remained higher upto 15 minute with 1 and 2ml dose rate and 20minutes with 4ml dose rate. The peak level was observed at 10th minute with 1 and 2ml dose rate and 5th minutes with 4ml dose rate.

A non-significant reduction in respiration rate and increase in heart rate was observed with both the agents with 1ml and 2ml dose rate. Where as a significant decrease in respiration and increase in heart rate was observed at 5th post injection minute with 4ml dose rate. These changes were observed more pronounced with conray -420 than urografin.

THERAPEUTIC EFFICACY OF HOMOGENOUS SYNOVIAL FLUID TRANSFUSION IN ASEPTIC ARTHRITIS IN EQUINES: CLINICAL AND RADIOLOGICAL EVALUATION.

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Aseptic traumatic arthritis of tibiotarsal joint was induced by injecting turpentine oil intra-articularly in 12 adult donkeys and divided into 3 equal groups. Animals of group I were treated with 3ml of fresh homogenous synovia intraarticularly, group II with a combination of 1.5 ml of fresh homogenous synovia and 1.5 ml (37.5mg) diclofenac sodium on 3rd post-induction day, whereas group III served as untreated control. Clinical and radiological examinations were carried out before induction and on 3rd and 20th post induction days. On 3rd post induction day, lameness, pain on palpation, increase in joint circumference, positive flexion response and reduced joint mobility were evident in all the animals. Radiographic examination revealed an increase in soft tissue density of the affected joints.

Following treatment maximum improvement in joint circumference, weight bearing and flexion test was seen in group II followed by group I and III on 20th day as compared to the 3rd day. All the animals of control group were mild to moderately lame and only mild flexion of the effected joint was possible on 20th day. Other clinical paramaters like cardiac and respiratory rates and rectal temperature were not significantly altered. Radiographically, on 20th post induction day, maximum decrease in soft tissue density was observed in group II followed by group I and III.

LUNG ABSCESSSES AND CAVITORY LESIONS IN CATTLE AND BUFFALOES RADIOGRAPHIC OBSERVATIONS

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Jit Singh and Prem Singh*

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Lung abscesses and cavitary lesions were recorded in 38 clinical cases, being more in buffaloes than in cattle. These animals showed signs of dullness, loss of appetite

emaciation, drop in milk yield, cough, respiratory distress, purulent nasal discharge and moderately elevated body temperature.

Radiographs in cases of lung abscesses demonstrated large, rounded, well delineated radiodense lesions surrounded by aerated lung. In some cases, multiple abscesses were seen but, since they overlapped, these could not be differentiated distinctly from each other. Gas capped fluid level within the abscess was also seen in some cases. The conditions were invariably associated with mixed pattern of pulmonary infiltration. Vascular markings were usually not sharply distinct due to overall increased density of lung field. The cavitary lesions were identified as rounded or irregular shaped air filled lesions having radiodense margins and giving a soap-bubble appearance to affected lung field.

Radiography is considered an important tool to identify such cases in conjunction with history, clinical signs and laboratory findings.

SONOGRAPHIC DIAGNOSIS OF HYDRONEPHROSIS IN A DOG

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David*

*Department of Surgery, Madras
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A six year German shepherd dog was presented with a complaint of gradually increasing swelling in left paralumbar fossa. Dog exhibited pain, dysuria and anorexia. The animal was subjected for physical and laboratory examination. Ultrasonographic scanning confirmed the lesion as Left Hydronephrosis. Affected kidney was removed by nephrectomy following which animal had uneventful recovery.

CONTRAST ARTHROGRAPHY OF THE CARPAL JOINT IN CALVES

D.S. Bist, Rishi Tayal & A.P. Singh

Positive and double contrast arthrography of the carpal joint was done in calves using urographin 76% and room air as

positive and negative contrast media, respectively. The positive contrast medium was used in the concentrations of 19%, 25%, 38% and 76% and in the volume of 1 to 8 ml for various trials. Double contrast arthrography was done by using 1 to 3 ml of 76% urographin alongwith 15 to 25 ml of air. Arthrograms obtained within 3 minutes of the injection of the contrast medium were of good diagnostic quality. Lower concentration (38%) of the contrast medium helped in better visualization of the articular tissues. Optimum dose of urographin for carpal arthrography was 3 to 4ml. Double contrast arthrography had no merits over the positive contrast arthrography.

DIAGNOSIS OF RENAL ISCHEMIA BY UROGRAPHY AND NEPHROSONOGRAPHY

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David*

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A two year old dog was presented with a history of anorexia, sublumbar pain and occasional emesis. Hemogram and urinalysis results were within normal range. Excretory urography demonstrated non functional left kidney. Nephro sonography revealed hyperechoic areas in left kidney and normal architecture in right kidney. Surgical exploration revealed normal right kidney and atrophied left kidney due to renal ischemia. Affected kidney was removed by nephrectomy.

TECHNICAL SESSION VI SMALL ANIMAL SURGERY

Chairman : Dr. P.A. Deore

Rapporteur : Dr. M. K. Bhargava

ORAL PAPILLOMATOSIS IN CANINE A CASE REPORT

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A pomerian dog aged 2 years was presented to the clinic with papillomatous

growths on the oral mucosa. Dysphagia, Anorexia, oral fetor and hypersalivation were noted. Under 2.5% thiopentone sodium anaesthesia the growths were excised and applied with liquid nitrogen.

This was repeated for 3 weeks after which the animal showed complete regressing of growths. Incidence of oral papillomas and different methods of treatment discussed.

CLINICAL STUDIES ON CANINE NEOPLASMS-REVIEW OF 60 CASES.

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Analysis of 60 clinical cases of canine neoplasms reported at College Clinic during the last 8 years revealed high incidence of genital tumours comprising 67% of total neoplasms affecting equally both the sexes followed by mammary gland tumours (8%) and remaining 25 % neoplasms were confined to the bone, skin and para-anal areas. Highest frequency of genital and mammary neoplasms occurred in the spring and autumn season. No definite breed predilection was established except for genital tumours which were observed more in smaller and mixed breeds. Diagnosis of these neoplastic conditions were mainly based on their gross physical appearance, radiographic observations and histopathological studies. Histopathology revealed the prevalence of transmissible venereal granuloma followed by adenoma, fibroadenoma, haemangiosarcoma, round cell fibrosarcoma, basal cell epithelioma, lipoma, hamartoma and sertoli cell tumour. All the neoplastic conditions were treated successfully by using chemotherapy (Vincristine Sulphate- 0.025 mg/kg body weight i.v.) and surgically (Excision, Episiotomy and Ovariohysterectomy) except in

few cases recurrence was reported after 2-3 months.

MULTIPLE MAMMARY TUMOURS IN A BITCH AND ITS SURGICAL MANAGEMENT- A CASE REPORT

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A 10 year old crossbred bitch was referred to the Peripheral Veterinary Hospital with a history of growths in the chest and abdominal region. Clinical examination revealed four hard circumscribed non-pedunculated mammary tumours. Associated lymph adenopathies were observed. The hind limbs were mildly edematous with pitting on pressure. Haematological and Electro cardiographic evaluation were normal. Plain radiograph of the thorax did not indicate any metastasis. The masses were surgically excised along with the associated lymph nodes (lumpectomy) and the wound closed as per standard procedure. The skin wound closed uneventfully. No post operative complications were observed. The growths weighed approximately 1.100 kgs. Histopathological examination of the tumours confirmed a mixed adenoma.

LOCAL ADMINISTRATION OF CORTICOSTEROID FOR TREATMENT OF AURAL HAEMATOMA IN DOGS

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The study was conducted in 10 clinical cases of aural haematoma in dogs. Under

diazepam (@2 mg/kg, i.m.) sedation, the blood clots and the exudate were drained through a hypodermic needle (16-17 gauge) by puncturing the concave surface of the external ear and the cavity was irrigated thoroughly with sterile normal saline. A mixture (1.5-2.0 ml) of dexamethasone (@ 0.25 mg/kg) and gentamicin (@1.0 mg/kg) was then infused through the same needle. The drugs were well spread all over the cavity and left in situ. No bandage was done. The same procedure was repeated once in every 24/48 hours.

Complete regression of haematoma was seen in 5 cases within 4-5 injections. In 3 cases, more prolonged treatment was required due to recurrence. Whereas in remaining 2 cases, there was no substantial improvement and they were then subjected to conventional surgical treatment. Recurrence was mainly attributed to early withdrawal or break in the treatment schedule. In responded cases, the outcome was better than conventional surgical treatment in terms of fibrosis and malformations of the pinna. The study indicated that dexamethasone-gentamicin treatment may be undertaken in clinical cases of aural haematoma.

SECONDARY ECTOPIC PREGNANCY IN A QUEEN CAT A CASE REPORT

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Centre for Animal Health Studies

Tamil Nadu Veterinary and Animal Sciences University Chennai-600 051

A queen-cat aged about 11/2 years was brought with history of abdominal distension and gave birth to one normal kitten 3 days back. Abdominal palpation revealed foetal mass and confirmed as extrauterine fetus by Radiography. The cat appeared unconcerned about further sign of labour. Right flank laparotomy was performed under ketamine anaesthesia. A well developed dead foetus positioned outside the uterus with a thin serous membrane covering with fluid inside

was observed. No fluid could be observed in the abdominal cavity. The serous membrane with a cord like structure extended towards the left horn where there was evidence of small opening near the distal end of the uterine horn. Animal made recovery after panhysterectomy and removal of the fetus.

CLINICAL STUDIES ON TOXIN INDUCED MENINGITIS IN ROTTWEILERS

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A study was conducted on six rottweiler pups aged 3 months and one adult aged 3 years suspected to be Neuromuscular disorders showing signs of ataxia, hyperaesthesia, cervical rigidity, paresis to paralysis, seizures, behavioural changes and blindness. Possibility of various etiological agents like toxins, Rickettsial, infections, granulomeningio encephalitis, bacterial infection, protozoal infection were studied and confirmed as feed toxicity. The animal responded well to fluid therapy, tetracycline 20 mg/kg and Nimesulide 5 pups and one adult recovered after treatment, however the one severely affected pup died after 5 months. CSF analysis, toxin assay, haematology, myelography and histopathology studies will be discussed.

EXPERIMENTAL EVALUATION OF A NEW ABSORBABLE HAEMOSTATIC GAUZE - 'SANGUISTAT'

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G.R. Singh

Division of Surgery

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This study was conducted to evaluate a new biomedical, absorbable haemostatic gauze, 'Sanguistat' in different surgical

conditions in domestic, pet, & laboratory animals. This is an absorbable cellulose matrix impregnated with chitosan (CIFT-Kochin). During different surgical conditions viz. gastrotomy, enterotomy, ovario-hysterectomy, spaying, tumor excision, hernioplasty etc. in clinical and experimental cases, we had plugged the bleeding vessels with this gauze and observed haemostatic effect within 2-5 minutes. In some cases, just surface plugging with a pinch of the gauze could be enough to promote clotting and prevention of bleeding. In 15 cases in lab and pet animals, this gauze kept in situ for post surgical haemostasis. After one week, when it was reoperated to expose the test viscera/organ, it was completely resolved and was absolutely free from any local/systemic reaction. It did not hindered wound healing in any cases.

EXPERIMENTAL STUDIES ON A NEW SYNTHETIC ABSORBABLE SUTURE FROM FISH-GUT COLLAGEN.

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The study was conducted on six clinically healthy adult New Zealand white rabbit of either sex. Under thiopental anaesthesia (2.5%), laparotomy was performed through mid ventral incision in all the animals. Two gastrotomy incisions (each 5 cm long) were given 5 cm apart at greater curvature of the stomach. These wounds were repaired by lembert sutures using fish gut (2/0). Two animals were euthanized on 15, 20 and 30 post operatively. Gross and histopathological observations, bursting pressure of stomach were performed. Blood was collected from each animal on the date of euthanasia for estimation of serum acid (ACP) and alkaline phosphatase (ALP) activity to assess the

degree of inflammation and progress of wound healing.

Gross observation of the gastric wound showed complete healing by day 15 post operatively and did not revealed any irritation/local allergic reaction/toxic effects in all the test animals. No remnant of 'fish-gut' was observed after 20 days of post incision. No leakage or discontinuity in the suture line was seen in any of the animals. Histopathological observations revealed progress of wound healing in subsequent intervals and on day 30, complete healing of gastric mucosa and dissolution of suture material and healing tissue was undifferentiated from normal healthy tissue. The bursting strength (mm/Hg) of test stomach attained near normal on day 30 post operatively. Both serum ALP and ACP increased following gastrotomy but it tend to normal value on day 30 post operatively.

ROLE OF HOMOLOGOUS VEIN TISSUE GRAFTING IN CANINE URETHRAL WOUND HEALING

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The study was conducted on six clinically healthy mongrel dogs. Urethral intubation was done prior to surgery. Pre-scrotal urethrotomy was performed under general anaesthesia. In stead of suturing the urethra, a patch of homologous vein preserved in 20% pooled plasma saline was applied on the urethral would covering corpus spongiosum urethrae and cut urethral margins. The graft was secured with 5-0 polyglactin-910 in continuous pattern anchored on penile tissue (tunica albugenia). The animals were observed upto 60th post operative day. The parameters studied were clinical observation, hematology of venous blood, bacteriological examination of urine, positive contrast urethrography and gross and microscopic examination of urine, positive contrast urethrography and gross and

microscopic examination of urethral tissue. Wound and urinary tract infection developed in some animals was controlled with use of proper antibiotic selected on the basis of culture and sensitivity tests. Urethrograms showed normal urethral lumen. Micrometric measurements of urethral luminal size at the urethrotomy site showed nonsignificant increases when compared with the normal urethra. Microscopically urethral lumen was lined by transitional epithelium. A part of the grafted vein could be seen in tissue sections.

GENERALISED SUBCUTANEOUS EMPHYSEMA IN A MONGREL DOG

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Generalised Subcutaneous emphysema due to dog bite in the neck was diagnosed in a dog following acute onset, 2 days after the incidence. Radiography confirmed the presence of air over the entire chest, abdomen, neck proximal part of the limbs. Multiple skin incision was made over the affected area i.e. neck, chest, abdomen and thigh. The animal made an uneventful recovery after a week of rest, streptopencillin 0.5gm i/m injection and chest coat application.

SURGICAL TRANSPOSITION OF STENSON'S DUCT FOR KERATOCONJUNCTIVITIS SICCA IN DOGS.

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Kerato conjunctivitis Sicca or Dry Eye is quite often seen in the dog leading to impaired vision thereby affecting the normal life. Various medicinal measures to keep the eye moist have been tried but without much help and the only permanent solution is by way of

transposition of Stenson's duct into the lateral canthus of the affected eye.

This experiment has been tried in twelve healthy dogs after using siquil and intraval sodium as tranquiliser and anaesthetic respectively. Preoperative preparation was done as per standard procedure and the animal was kept in lateral recumbency. The upper lip was everted to locate the papilla and then a 2/0 mono prolene was passed through parotid papilla into the entire length of duct for easy identification. The surgical procedure was performed as per Glen and Lawson, 1971. 10% fluorescein dye was used post operatively to confirm the patency of the duct. Subsequently this technique was tried in four clinical cases with excellent results.

LAPAROSCOPIC OVARIECTOMY IN DOGS

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Veterinary College, Chennai-600 007

Three female dogs weighing around 15Kg were selected for laparoscopic ovariectomy. Both flanks were routinely prepared and the animals were positioned in lateral recumbency under general anaesthesia. Pneumoperitoneum was created using carbondioxide with preselected pressure (15cm Hg) and flow rate (21t/mt). After insufflation, two 6 mm trocar and cannula and one 11 mm trocar and cannula were fixed in position. The Ovary was grasped and held with forceps and two endo clips were applied on the cranial and caudal attachments of the ovary. Resection of the attachments was started from the caudal end to cranial end with the help of scissors attached to unipolar cautery. After complete resection, the ovary was grasped by traumatic grasping forceps and pulled out through the 11mm cannula. The same procedure was followed on the other flank to remove the other ovary. A single interrupted suture was applied for each skin incision. All the animals recovered uneventfully without any complication.

LAPAROSCOPY AND GUIDED BIOPSY OF LIVER AFFECTED WITH CIRRHOSIS IN A DOG

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A four years old Cocker-Spaniel dog was admitted to the Madras Veterinary College Hospital with the history of distention of abdomen and deterioration of general condition since four months. On clinical examination the animal was found dull and debilitated with presence of fluid in the abdomen. Laboratory investigations revealed anemia, leucocytosis with neutrophilia and elevation of AST and SAP. Abdominocentesis was performed twice and about 4.5 litres of ascitic fluid was drained. Treatment of the animal included antibiotics, supportive therapy and intravenous fluids. Laparoscopic diagnosis was resorted. Under Thiopentone anaesthesia laparoscopic visualization of the viscera was carried out using a 5 mm Hopkins Telescope and other accessory equipments. The liver lobes were found shrunken, discoloured and pale suggestive of cirrhosis. Under telescopic guidance about two litres of ascitic fluid was drained and biopsy of the liver tissue was obtained using an insulated biopsy forceps. Microscopic studies of the biopsy sample confirmed the diagnosis as cirrhosis.

URETHROCYSTOSCOPIC STUDIES IN A DOG.

T. N. Ganesh, Mohammad Hassan Rahman Khan

Department of Clinics, Madras Veterinary College, Chennai-600 007

An healthy female dog weighing 15 kgs was selected for urethrocystoscopic studies. Under general anaesthesia the bitch was positioned in dorsal recumbency, with the hind quarters slightly beyond the edge of the table.

The external genitalia was prepared for introduction of the scope. With the help of a vaginal speculum the urethral orifice on the ventral wall of the vestibule was located and a 17 Fr. cystoscope sheath with obturator was then passed through the urethra. The introduction of the instrument was facilitated by the use of graduated urethral meatus dilator and lubricating jelly. Once the instrument was inside the bladder, the obturator was removed and urine was drained. The 5mm telescope was locked in place and the bladder gradually distended with saline. The normal appearance of the bladder was studied and documented. At the end of the examination the urethra was studied as the sheath was slowly withdrawn.

TREATMENT OF MIDSHAFT FEMORAL FRACTURE IN A TIGER CUB.

I. Nath, V.S.C. Bose, B.N. Mohanty, S. Das, R. Singh, S. Nayak, A.K. Mishra, & A.K. Ray

Department of Surgery, Orissa Veterinary College

Mid-Shaft femoral fracture in a tiger cub has been successfully treated by intramedullary pinning under ketamine and Xylazine anaesthesia.

UNUSUAL FOREIGNBODY SYNDROME IN A DEER (AXIS AXIS).

I. Nath, S. Das, B.N. Mohanty, A.K. Mishra, V.S.C. Bose & A.K. Ray
Department of Surgery, Orissa Veterinary College.

A captive deer showing symptoms of swollen neck on leftside presented to Surgery department for treatment. Radiography of neck and rumen area indicated the presence of a long metallic foreignbody in the rumen. Rumenotomy was conducted under Xylazine and local infiltration anaesthesia to remove a long suture needle used for cotton-bed making. The animal had an uneventful recovery.

TEATMENT OF MIDSHAFT FEMORAL FRACTURE IN A MONKEY.

I. Nath, A.K. Ray, S. Das, A.K. Mishra,
Department of Surgery, Orissa Veterinary College.

Midshaft femoral fracture in a monkey has been successfully treated by intramedullary pinning under ketamine and Xylazine anaesthesia.

AWARD SESSION

Best Field Veterinary Clinician Award
(Nasik Local Chapter)

TECHNICAL SESSION VII

ORTHOPAEDIC SURGERY

Chairman : Dr. O. Ram Krishna

Rapporteur : Dr. Amar Pal

"CORRECTION OF LIMB DEFORMITY IN A DOBERMANN PINSCHER BITCH USING ILIZAROV TECHNIQUE - A CASE REPORT.

Tamal B. Sen, P.K. Bose, P.K. Samanta, B.K. Maiti
Department of veterinary Surgery & Radiology
Faculty of veterinary and animal sciences.
W.B.U.S. & F.S.
37, K.B. Sarani,, Calcutta-700 037

A Dobermann Pinscher Bitch aged about 3 years, weighting about 35 kg. was brought in a clinic with complication of angular deformity following fracture separation of the distal epiphysis of the left tibia. The Bitch was unable to bear weight on its affected left hind limb.

Ilizarov fixator with four number of 100mm. half rings, four number of tractor point K-wires (1.8mm) with two posts were used to maintain allignment & prevent rotation under general anaesthesia. The bitch tolerated the technique well and it started bearing weight gradually.

TREATMENT OF HIP DYSPLASIA/HIP DISLOCATION BY EXCISION ARTHROPLASTY OF FEMORAL HEAD IN FOUR DOGS.

B. Sridhar

Sr. Veterinary officer, Hyderabad Race club.

Three Basset Hound pups (age 3 months) with hip dysplasia and one Alsatian dog (age 9 months) with traumatic hip dislocation were treated by excision arthroplasty of femoral head.

A cranial approach to the hip joint was made by making incision between gluteobiceps and tensor faciae latae to locate the hip joint. Following this, the gluteus medius was retracted dorsally and a part of origin of quadriceps femoris was severed to expose the joint capsule. The joint capsule was severed and femoral head was rotated outward and round ligament was severed to completely dislocate the femoral head out of acetabulum. The femoral head was excised with a bone rongeurs. The origin of quadriceps femoris was re-attached with a mattress catgut no: 2 suture and the edges of gluteobiceps and tensor fasciae latae were reopposed with continuous catgut no:1 suture. Subcutaneous tissue and skin were sutured in two layers. A Robert-Jones bandage was applied for 10 days. Ampicillin + Cloxacillin preparation was given for 7 days.

Exercise on rough floor was encouraged from 15th day onwards. The Alsatian dog attained normal gait and posture and was running around freely without pain by 4th month. The followup information in case of the Basset Hound Pups will be made available.

A RETROSPECTIVE STUDY OF BONE AND JOINT DISORDERS IN FARM AND PET ANIMALS

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Madras Veterinary College,
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A retrospective study on bone and joint abnormalities was carried out in 285 orthopaedic cases reported to the Surgery unit, Madras Veterinary College, during the period 1997-98. The study was analysed based on the findings of radiographic examination. The distribution of animals affected were Canine (70.9%), Bovine (14.4%), Caprine (11.2%) and Feline (3.5%). The various conditions radiographically diagnosed were fracture (74%), Spondylitis (8.4%), Joint luxations 6.65%, hip dysplasia (5.3%), arthritis (4.6%), Osteoarthritis (0.7%) and bone tumor (0.35%). Male animals were involved more (55.7%) than the female animals (44.3%). More number of cases affected were in the age group of more than one year (40.4%) which may be due to degenerative conditions in general, followed by the age groups of 0-3 months (23.5%), 4-6 months (19.3%), 7-9 months (10.9%) and 10-12 months (5.9%).

SUPRACONDYLAR FEMORAL FRACTURE FIXATION WITH DIFFERENT TECHNIQUES : A GROSS AND MICROSCOPIC STUDY

*H.P. Aithal, G.R. Singh and A.K. Sharma**

*Indian Veterinary Research Institute,
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The study was conducted in 20 adult mongrel dogs of either sex, divided equally in 4 groups, A,B,C and D. In all the animals, a transverse supracondylar fracture was created in left femur under thiopental general anaesthesia. The fractures were then immobilized with crossed pinning (gp A), modified technique of single pinning (gp B) stainless steel plating (gp C) and contoured horn plating (gp D). All the animals were maintained for 90 days and then subjected to gross, undecalcified ground section and histopathological studies following their sacrifice.

Grossly, all the animals showed good union at the fracture site, except 2 animals of group C, where bending of plate and other signs of fixation failure were evident. The amount of periosteal callus was more in group B than groups A and D, and was seen around the fracture site indicating instability. In group C, callus was more on concave side of the bone suggesting bending stress. Stifle joint did not show any change except in 2 cases (one each in gp C and D) where discolouration of synovial fluid and articular cartilage were present. Microscopic examination revealed that fracture healing was slowest in group C, as evidenced by more of cartilagenous tissue at the fracture site. Healing was comparable among other groups, except in 2 cases of fixation failures, where delayed/non union was present. The study indicates that cross pinning and horn plating provides more rigid fixation than single pinning and stainless steel plating leading to early fracture healing.

PRODUCTION OF AN ANIMAL MODEL OF POSTTRAUMATIC OSTEOMYELITIS.

M. Hoque and G.R. Singh

Division of Surgery

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The experiment was conducted in 36 goats equally divided into 6 groups. Osteomyelitis was produced by using unsterilized steinmann pin, K-nail and stainless steel plate in femoral fracture in group A-1, B-1 and C-1 respectively. Groups A-2, B-2 and C-2 served as corresponding controls where sterilized devices were used. Clinical, haematological, biochemical, radiological, bacteriological and histopathological studies were conducted to evaluate the progress of the disease upto 30 days. Clinical signs like pain and lameness, elevated total leukocyte counts, neutrophil counts, alkaline phosphatase activity were

found useful parameters for early diagnosis of osteomyelitis. However, bacterial isolation, soft tissue changes and bony destruction detected on radiography and bone biopsy examination were needed to confirm the diagnosis.

EFFECT OF ANABOLIC HORMONE IN FRACTURE HEALING - AN EXPERIMENTAL STUDY.

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*Division of Surgery
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The study was conducted on six clinically healthy adult Newzealand white rabbit of either sex divided into two groups (X and Z) consisting of three animals each. In all the animals midshaft segmental defect (1 cm) were created in both the ulnae, under thiopental (2.5%) anaesthesia. In test group (x), 10 mg of Nandrolone phenylpropionate (durabolin) was injected intramuscularly in 5 days interval at 7 occasions. Lateral and A/P radiographs were taken on days 0, 7, 14, 21 28 and 35 postoperatively.

Inflammation at the fracture site increased upto 4th post operative day in all the animals of both groups, then it resumed to normal by day 7. Surgical wound healing was by first intension in all the animals. Earliest return of weight bearing was seen in animals of test group followed by control group. Body weight and food intake were increased two fold in the test group of animals. Radiographs taken at different intervals revealed good fracture healing in test group than control. New bone developed from both the cut ends of ulnae as well as adjacent periosteal surface of radius obliterated the fracture gap progressively in the test group whereas fracture healing in control group was slow and delayed.

RADIOLOGICAL EVALUATION OF AUTOGENOUS BONE GRAFT AND BONE SUBSTITUTES IN THE MANAGEMENT OF FRACTURE HEALING.

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Fifteen New Zealand white rabbits of either sex randomly divided into five equal groups (A to E) to evaluate and compare autogenous bone graft, tricalcium phosphate (TCP), calcium hydroxyapatite (HA), calcium hydroxyapatite and bone matrix (HA+BM), and controls (bone defects only) respectively. Two trials of same grafts/implants were conducted in each animal in the repair of ulnar defects. Lateral radiographs were taken on day 0,20,40 and 60 postoperatively. Animals of group-A showed osseous union at day 40 and by day 60 graft was incorporated in the host bone. The animals of groups B, C, and D exhibited the implants in position at different intervals. Early resorption of TCP was evident than HA. At day 40 early bone formation was detected in HA+BM group. Remnants of implant material was detected on radiographs upto day 60. At this stage, remnants of HA was more evident than TCP. The animals of control group exhibited osseous activity at the early stage, however, union of the fracture end could not be achieved.

BACTERIOLOGICAL OBSERVATION IN EXPERIMENTAL POSTTRAUMATIC OSTEOMYELITIS.

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Osteomyelitis was produced by using unsterilized steinmann pin (group A-1), K-nail

(group B-1) and stainless steel plate (group C-1) in femoral fractures in six goats each respectively. Groups A-2, B-2 and C-2 of 6 animals each served as corresponding controls where sterilized devices were used. On day 15 and 30 post-operation swab for bacteriological examinations were collected from the fracture site of the animals from test and control groups. The animals of test groups yielded 27.7% monomicrobial and 72.3% polymicrobial involvement. of the 5 monomicrobial isolates, *S. aureus* (2), *Pseudonas* (2) and *Proteus* (1) were present in pure culture. In Polymicrobial infection 2-3 bacterial species were isolated. It was revealed that *S. aureus* was the most frequently (55.5%) isolated organism followed by *Streptococcus* spp. and *Pseudomonas* spp (33.5%), *Proteus* spp. (27.7%), *Klebsiella* spp. and *Pasteurella* sp. (11.1%) and *Moraxella* spp (5.5%) in that order. The animals of control groups were found to be negative for any of the bacteria. Also, the swab samples from all the groups that were processed for the isolation of anaerobic bacteria turned out as negative.

CLINICAL MANAGEMENT OF COMMINUTED FRACTURE OF TIBIA IN A PUP BY OPEN REDUCTION AND INTERNAL FIXATION A CASE REPORT

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A four month old mongrel pup referred to the Peripheral Veterinary Hospital with a history of trauma to the right hind limb. Clinical and radiological examination confirmed a comminuted shaft fracture of right

tibial diaphysis. The fracture was immobilised by open reduction and internal fixation using an 8 hole 2.7 mm. Dynamic compression plate applied as a buttress based on the techniques devised by the AO/ASIF group. The limb was placed on supportive Robert Jones bandage. The fracture healed excellently and near normal function was observed by fourth week post surgery. The plate was removed after 12 weeks. This technique of immobilisation of fracture by internal fixation based on AO/ASIF techniques using suitable rigid implant promoted active and early pain free movement, full weight bearing of traumatized limb, excellent fracture healing. No fracture disease signs were encountered in the present case.

CLINICAL AND RADIOLOGICAL STUDY ON CHRONIC LAMENESS IN DOGS

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34 Cases of chronic lameness in dogs were investigated. The problems were classified into those diagnosed in young dogs of small, medium sized and Giant breeds and in Adult dogs. Possible causes of traumatic, degenerative (or) metabolic were analysed. Diagnosis was based in clinical and radiographic examination. Treatment procedures are discussed.

INTRA ARTICULAR PROCAINE THERAPY FOR THE MANAGEMENT OF INFECTIOUS ARTHRITIS

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Experimental arthritis was produced by intraarticular administration of the

Staphylococcus aureus in 12 buffalo calves. The animals were randomly divided into 2 groups. The animals of group 1 and 2 were treated with intraarticular administration of amikacine sulphate 100 mg daily for 10 days and amikacine sulphate and 0.5 ml of 0.5% procaine hydrochloride intraarticularly at alternate day for 10-12 days in animals of group 1 and 2 respectively. The efficacy of the treatment was assessed clinically by observing heat, pain, swelling, weight bearing and knee circumference. The cytological and biochemical parameters in blood and synovial fluid included estimation of total leucocyte count, differential leucocyte counts, glucose, total protein, albumin, globulin, urea nitrogen, creatinine, calcium, alkaline phosphatase. The results showed the combination of amikacin sulphate and procaine hydrochloride caused a significant early and better recovery as compared to those given amikacin sulphate alone in case of infectious arthritis.

EFFECT OF CORIANDRUM SATIVUM IN ACCELERATING HEALING PROCESS OF EXPERIMENTALLY FRACTURED RADIUS - ULNA OF DOG

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Study was undertaken to evaluate the osteogenic property of fresh green leaves of *Coriandrum sativum* (Dhaniya) on experimentally mid-shaft fractured radius-ulna of nine clinically healthy dogs. Fractured limbs were immobilized upto 3rd week with bamboo splint reinforced with plaster of paris cast. The animals were given 100 grams of finely grinded fresh green leaves of *Coriandrum sativum* alongwith 250 ml of cow milk twice a day daily upto twenty post-fracture day.

Coriandrum sativum treated animals revealed faster initiation of healing process than the control group animals on clinical,

radiological, histological and histo-chemical examinations. Functional restoration of fractured limbs was observed on $21 \pm$ post-fracture day in treated animals, whereas in control group of animals it was $31 \pm$ days. Radiographic evidence of definite, well organized and more compact periosteal callous around the fractured bone at 3rd week and reunion of medullary canal at 6th week was observed in treated animals. Histological and histochemical observations revealed profusely branched and anastomosed bony trabeculae with heavy deposition of collagen at the fracture site at an early stage than control animals. On the basis of present study it was inferred that fresh leaves of *Coriandrum sativum* possess osteogenic property.

CLINICAL AND RADIOGRAPHIC EVALUATION OF MODIFIED TRANSFIXATION ALONG WITH BONE PLATING TECHNIQUE FOR REPAIR OF METACARPAL FRACTURE IN BOVINES.

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Ten clinically healthy, male, cross bred cow calves were randomly divided into two groups of five animals each. They were provided identical housing and managerial conditions. Mid shaft fracture of right metacarpal was created under general anesthesia. The fracture was immobilised by traditional transfixation in group I and by combination of bone plating along with modified transfixation technique in group II animals. The clinical parameters viz. pulse rate, respiration rate, rectal temperature, hematological observations were recorded at regular intervals. The operated limb was inspected for wound healing, presence of transudate/exudate on the suture line, degree of swelling, pain on palpation and weight bearing while standing and walking at regular

intervals. Fracture healing was monitored by plain radiography and angiography. Clinical parameters varied within their normal physiological limits. Wound healing and resolution of transudate, swelling and pain was earlier in combination group. Radiographs revealed early and better healing of fractures in combination (group II) animals. The size of periosteal callus, periosteal reaction and an increase in soft tissue density was minimum in this group as compared to traditional transfixation group. Angiograms of the combination group animals revealed normal vascular pattern of the bone.

USE OF POLYTETRAFLUOROETHYLENE (PTFE) AND FREEZED TRACHEAL MUCOSA FOR RECONSTRUCTION OF ARTIFICIAL TENDON SHEATH IN COW CALVES: CLINICAL, RADIOLOGICAL & HISTOPATHOLOGICAL STUDY.

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A.K.Sharma & N.S. Parihar*

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The study was conducted on 8 male cow calves of 5 to 6 months of age divided into two equal groups A & B. Superficial digital flexor tendon (SDFT) was exposed under triflupromazine hydrochloride sedation & local infiltration analgesia. A 2 cm long tendon sheath was removed and tenectomy of SDFT was done by Bunnell- Mayer technique using silk No. 1. Construction of new tendon sheath was done with polytetrafluoroethylene (PTFE) in group A and with deep Freeze tracheal mucosa in group B. Limb was immobilised with plaster of paris cast for 15days. Rectal temperature, heart & respiration rate were recorded daily for 7 days. Tendon gliding movements were recorded on day 15, 30,45

& 60 post - operatively (P.O.). Air tendograms (Fasciagraphy) and tendon biopsy were taken on day 30 & 60 .0. No significant ($P>0.05$) difference in clinical parameters was observed upto day 7. Varying degree of lameness was observed for first 15 post operative days. No . gliding movements were observed on day 15 & 30 in both the groups. however partial gliding was noticed on day 45 in group A & full gliding on day 60, where as gliding movement was partial on day 60 in group B. Air tendograms revealed thickening of flexor tendons and presence of superficial adhesions between skin and deep digital flexor tendon on day 30 in both the groups. Reduction in swelling was observed on day 60 in both the groups. Histopathological examination on day 30 in both the groups revealed anastomosis of both the ends by fibrovascular tissue which subsequently replaced by matured fibrous connective tissue on day 60. Remnants of suture material were also present in both the groups. Evidence of tracheal tissue around anastomosis had practically disappeared on day 60. Few adhesions between PTFE and newly formed fibrous connective tissue was also observed.

AUTOGENOUS TENSOR FASCIA LATA AND DERMAL GRAFT FOR GAP REPAIR OF SUPERFICIAL DIGITAL FLEXOR TENDON IN COW CALVES: CLINICAL, RADIOLOGICAL AND HISTOPATHOLOGICAL STUDY.

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Under triflupromazine sedation and local infiltration analgesia, a 2 cm defect in superficial digital flexor tendon was created

in 8 cow calves divided into 2 equal groups. The defect was filled with autogenous tensor fascia lata in group I and dermal graft in group II and was repaired by Bunnell Mayer technique using silk No. 1. Limb was immobilised with plaster of paris cast for 15 days. Non significant ($P>0.05$) increase in rectal temperature, heart & respiration rate was recorded upto day 7. Varying degree of lameness was observed up to day 15. There after lameness decreased gradually and optimum weight bearing was noticed after day 15. No gliding movement between flexor tendons was observed on day 15 and 30, however partial gliding on day 45 & full gliding movement on day 60 were observed in both the groups. Air tendo-grams on day 30 revealed adhesions of graft with deep digital flexor tendon and skin in both the groups, however, presence of adhesions were less on day 60 in both groups. Histopathological observations on day 30 in group I revealed fibrovascular tissue reaction at the graft fascial tendon junction where as connective tissue with tendinous tissue was observed on day 30. Histological examination revealed early formation of fibro connective tissue in group II as compared to group I.

ROLE OF REHABILITATION AND PHYSIOTHERAPY FOR TRAUMATIC CARPAL LUXATION AND FEMURE FRACTURE AND ITS SURGICAL MANAGEMENT IN A DOG

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A 3 year old Dobermann was referred with traumatic left carpal medial luxation, left femur fracture (Middle third, complete), and lacerated wound in the left fore limb extending from the carpal to proximal digital area. Under general anaesthesia left femur was immobilised with single steinman Pin (4.5mm) by internal fixation and the left fore carpal luxation was corrected manually and subsequently stabilised with P.V.C. splint after skin closure. Animal was brought to normal mobility with the efforts of fluid therapy, antibiotic therapy and the subsequent by Rehabilitation (use of weights) and physiotherapy techniques (Passive movements). The details of surgical management, complications, rehabilitation and physiotherapeutic techniques will be discussed.