



*Sixteenth Annual Congress
of*

**INDIAN SOCIETY FOR VETERINARY SURGERY
AND
NATIONAL SYMPOSIUM**

ON

**Recent Advances in the Management of Surgical Disorders
of G.I. Tract in Large Animals**

(20 - 22 JANUARY , 1993)

**TECHNICAL PROGRAMME
AND
ABSTRACTS**



**Marathwada Agricultural University,
PARBHANI 431 402**

Sixteenth Annual Congress
of

INDIAN SOCIETY FOR VETERINARY SURGERY
AND
NATIONAL SYMPOSIUM

On

Recent Advances in the Management of Surgical Disorders
of G.I. Tract in Large Animals.

(11 - 13 DECEMBER, 1992)

TECHNICAL PROGRAMME
AND
ABSTRACTS

**Marathwada Agricultural University,
PARBHANI 431 402**

Indian Society for Veterinary Surgery

EXECUTIVE COUNCIL

President **DR. HARPAL SINGH**

Vice- President
Vice- President
Vice- President
Executive Secretary

Dr. A.K. Das
Dr. A.P. Bhokre
Dr. S.S. Misra
Dr. A.P. Singh

Joint Secretary
Editor
Assoc. Editor
Treasurer

Dr. K.G. Avachat
Dr. Gaj Raj Singh
Dr. M. Hoque
Dr. S.K. Chawla

ZONAL SECRETARIES

Dr. A.K. Srivastava
Dr. B.M. Jani
Dr. J.S. Chaggar

Dr. K.K. Mirakhur
Dr. K.K. Sharma
Dr. M.S. Vasanth

Financial Support
by

MARATHWADA AGRICULTURAL UNIVERSITY

is gratefully acknowledged

Typeset by : Beta Communications,
19, Ostwal Complex, Parbhani.
Tel. : 3807.

Technical Programme

Date: 11.12.92 (Friday)

Time hrs.	
7.30 to 8.30	Breakfast (Veterinary College)
8.30 to 9.00	Registration at Lecture Hall No. 1, Vet. College.
9.30 to 11.30	Inaugural Session (Agri. College Auditorium)
11.30 to 12.00	Tea break
12.00 to 13.00	Theme Session- I (Agri. College Auditorium)
13.00 to 14.00	Lunch Break (Vet. College)
14.00 to 16.00	Anaesthesiology Session- II (Court Meeting Hall Administrative Building)
16.00 to 16.15	Tea Break
16.15 to 17.45	Field Oriented Problem Session- III
19.15 to 20.30	Entertainment Programme (Agri. College Auditorium)
21.00	Dinner (Veterinary College)

Date: 12.12.92 (Saturday)

7.30 to 8.15	Breakfast
8.30 to 10.15	Large Animal Surgery (Clinical) Session- IV
10.15 to 12.00	Teabreak & Poster Session- V
12.00 to 13.00	Small Animal Surgery (Clinical) Session- VI
13.00 to 14.00	Lunch break
14.00 to 16.00	Experimental Surgery Session- VII
16.00 to 16.15	Tea break & Excursion.

Date: 13.12.92 (Sunday)

7.30 to 8.15	Breakfast
8.30 to 10.30	Orthopaedic Surgery Session- VIII
10.30 to 10.45	Tea break
10.45 to 11.45	Radiology Session- IX
13.00	Lunch Break
14.00 to 16.00	Business Session,

TECHNICAL SESSIONS

Theme Session: Recent Advances in the Management of Surgical Disorders of G.I. Tract in Large Animals

Sponsored by: Jhonson & Jhonson Limited, Ethicon Division, Bombay

Chairman: Dr. K.S. Deshpande **Rapporteur: Dr. Gajraj Singh**

Lead Paper: Successful Surgical Management of Intestinal Obstruction in Large Animals (Bovines & Equines)
Dr. S.S. Rathod

- 1.1 Determination of the sensitivity and predictive values of abdominal wall distension in diagnosis of gastrointestinal disorders in cattle.
Nowrouzian, I. & D. Sharifi
- 1.2 Abomasal Herniation and Fistulation in a Buffalo
Sobti, V.K., S.N. Sharma, N.S. Saini, K.I. Singh & D.C. Dhablania
- 1.3 Successful end to end intestinal anastomosis in seven cases of intussusception
Abdul Gani
- 1.4 A new technique for predictable treatment of recurrent anorectal prolapse in bovines.

Session II : Xylazine, Anaesthesia and Analgesia

Sponsored by: Indian Immunologicals, Hyderabad

Chairman: Dr. Amresh Kumar

Rapporteur: Dr. S.S. Marudwar

- 2.1 Clinical and haematological effects of xylazine in cow calves.
Shah D.A., R.R. Parsania, P.V. Parikh & N.H. Kelawala
- 2.2 Clinical and biochemical effects of xylazine in cow calves.
Patel B.K., R.R. Parsania, N.H. Kelawala & P.V. Parikh
- 2.3 Some observations on use of xylazine in dogs.
Wakankar C.C.
- 2.4 Ketamine anaesthesia in Zoo animals and birds.
Kalita D., B. Dutta & S.N. Gogoi
- 2.5 Experimental and clinical evaluation of diazepam, xylazine and ketamine anaesthesia in bovine.
More D.B., A.P. Bhokre, L.B. Sarkate & V.D. Aher
- 2.6 Xylazine and Ketamine anaesthesia in an Eagle.
Sharma S.K., A.C. Varshney, M. Singh & J.M. Nigam
- 2.7 Cardiopulmonary effects of diazepam and xylazine in dogs.
A. Kumar & B. Singh
- 2.8 Ketamine-thiopentone anaesthesia in calves.
Justin W.B., A. David, M.S.D.M. Mohammad & S. Balachandran
- 2.9 Effects of diazepam-ketamine anaesthesia on liver & kidney functions in canine surgical patients.
Pandey S.K. & I.J. Sharma
- 2.10 Survey of anaesthetic practices in small and large animal surgery in Greater Calcutta and its evaluation.
Mallick H., A.K. Maji, P.K. Bose & B.B. Das
- 2.11 Preliminary study on the effect of Pentazocine as a preanaesthetic and analgesic in bovine.
Bhokre A.P., L.B. Sarkate & V.D. Aher
- 2.12 Neuroleptanalgesic agent as preanaesthetic to thiopentone anaesthesia in dog.
A. Kumar & B. Singh
- 2.13 Clinical and analgesic effect of electro-acupuncture for surgery of abdominopelvic organs and limbs in goats.
Bihari A., A. Kumar & P. Agrawal
- 2.14 Central pool pharmacokinetics of barbiturates in camels.
Peshin P.K., R. Singh, R. Sharda, Jit Singh, A.P. Singh, D. Sharifi, D.B. Patil & K. Singh
- 2.15 Lumbar segmental epidural analgesia in buffalo calves.
Jagtap S.T., V.S. Panchbhai & A.P. Bhokre
- 2.16 Comparative evaluation of analgesia of paralumbar fossa in bovines.
Jagtap S.T., V.S. Panchbhai & A.P. Bhokre

- 2.17 Studies on epipleural and paranephric novocaine blockade in primary indigestion of buffaloes.
Prajapati A.K., D.A. Shah, B.M. Jani & R.R. Parsania

Session-III: Field Oriented Problem Session

Sponsored by: Bharatiya Agro Industries Foundation, Wagholl, Dist. Pune (M.S.)

Chairman: Shri Anand Kulkarni, Director of A.H.

Rapporteur: Dr. D.C. Dhablania

Session IV : Large Animal (Surgery Clinical)

Sponsored by: Wockhardt Veterinary Division, Bombay.

Chairman: Dr. R.L. Rao

Rapporteur: Dr. P.K. Samanta

- 4.1 A modified method for patellar desmotomy.
Tank P.H
- 4.2 Foetal mummification treatment- A new surgical approach.
Rajasekaran J., S. Balasubramaniam & A. Subramaniam
- 4.3 Analysis of 72 cases of dystocia in animals.
Ashturkar R.W.
- 4.4 Complications of castration in horses- a clinical report.
Parsania R.R., K. Sukumaran, P.V. Parikh, N.H. Kelawala, D.B. Patil & B.M. Jani
- 4.5 Effect of sodium diphenylhydantion in normal skin and infected tissues.
D. Sharifi & I. Nowrozian
- 4.6 Antimicrobial efficacy of three antiseptics on septic wounds in bovines- A comparative study.
Kumar R.B, & M.S.D.M. Mohammad
- 4.7 Role of gelatin granules as haemostatic & wound dressing agent in ruminants,
Kumar, B.R, T.P. Shastry & M.S.D.M. Mohammad.
- 4.8 Surgical management of gun shot wounds.
Kumar N., G.R. Singh, M. Hoque, A.M. Pawde & H.C. Sethia
- 4.9 Extraction of tusk in elephant.
Pathak S.C.
- 4.10 Hydramnios in a non-descript cow.
Markandeya N.M., D.R. Pargaonkar, A.P. Bhokre, S.A. Bakshi & S.V. Doijode
- 4.11 Thoracotomy in bovine.
Patil K.R., P.V. Choudhary, A.D. Patil, S.J. Bawiskar & A.B. Sapkale
- 4.12 Oral Commissurorrhaphy in a Camel- Calf.
Gahlot T.K., D. Sobhagya, G.R. Choudhary & D.S. Chouhan.

Chairman: Dr. P.O. George

Rapporteur: Dr. Jit Singh

- 6.1 Incidence of various neoplasm in canines of hospital population: (five years survey)
Kelawala N.H., B.M. Jani, R.R. Parsania, P.B. Jani & K.S. Prajapati
- 6.2 Tracheal tumour in a dog
Badgujar C.L., M.B. Mantri, & S.Z. Sharma.
- 6.3 Comparative clinical, biometrical and histopathological evaluation of calcium chloride, cadmium chloride and 'Talsur' in chemo-sterilization of male dogs.
Datta A.B., A.K. Maji & P.K. Samanta
- 6.4 Studies on control of stray dog population in Calcutta with a new chemosterilising agent
Datta A.B., & P.K. Samanta
- 6.5 Intra scrotal torsion of the testicle in a dog
Ganesh T.N., N.N. Balasubramanian, W.P.A. David, Kumar R.S., & M.S. Mohammed
- 6.6 Incidence of os-clitoris in 3 female dogs
Maji A.K., P.K. Bose & B.B. Das
- 6.7 Physical, radiological, histomorphological and karyotypic features in goats with ectopic urinary pouch and genital abnormalities
Shivaprakash, B.V., V. Kasralikar, V. Ramkrishna & S. Prassana Kumar

Session-: Experimental surgery

Chairman: Dr. O. Ramkrishna

Rapporteur: Dr. S.K. Pandey

- 7.1 Clinical evaluation of experimental neurotmesis and neuroanastomosis in buffalo-calves
Chaudhary S., & D.M. Tadkod
- 7.2 Experimental studies on intraneural neurorraphy of sciatic nerve in goats
Mogha, I.V. & M. Hoque
- 7.3 Therapeutic evaluation of dimethyl sulfoxide (DMSO) in endotoxin induced arthritic buffalo calves: effect on synovial fluid
Goti, B.S., B.M. Jani & R.R. Parsania
- 7.4 Evaluation of different treatment regimen in induced infectious arthritis in buffalo calves
Kumar S. & Harpal Singh
- 7.5 Circumferential tracheal replacement with homologous tracheal graft: An experimental study in goats
Hoque, M., G.R. Singh, I.V. Moagh, & N. Kumar
- 7.6 Clinicohaematological, histological and radiological studies in experimental cardio-esophageal stricture in dogs
Samanta P.K., A.K. Maji, S. Patra, P.K. Bose & B.B. Das
- 7.7 Wound healing properties of Karanj (*Pongamia glabra*) leaf extract and "SKINOMENT" ointment
Pawde, A.M., A.K. Amarpal, S.N. Sarkar, B.N. Kowale, V. Kesava Rao, T. More & M. Hoque.
- 7.8 A comparative study on healing of skin, muscle and intestine following scalpel and electrosurgery in rabbits
Bakhtyari Jalal & G.R. Singh
- 7.9 Tissue reaction of plastic Vs silk as suture material: A preliminary study
Pawde A.M., A.K. Amarpal, G.R. Sharma, K. Singh, M. Pratap, M. Hoque & N. Kumar.

- 7.10 Standardization of surgical procedure for embryo transfer
Thilagar S.D. Kathiresan, V.D. Padmarajan
- 7.11 Evaluation of dimethylsulfoxide with and without synovial fluid transplant for treatment of acute arthritis in calves
Tayal, P. I.S. Chandana, B.A. Kothia, J. Singh & A.P. Singh
- 7.12 Bacterial isolates from experimental haemogenous lamellar corneal transplantation
Chitra, P. E. D.C. Dhabhania
- 7.13 Effect of calvary epidermal growth factor on cutaneous wound healing in bovine: I- clinical evaluation
Varshney, A.C. Mohinder Singh, S.K. Sharma & J.M. Nigam
- 7.14 Effect of calvary epidermal growth factor on cutaneous wound healing in bovine: II- A histomorphological study
Varshney A.G., D.N. Sharma, M. Singh, S.K. Sharma & J.M. Nigam

Session: VIII: Orthopedic Surgery

Chairman : Dr J.M.Nigam

Rapporteur: Dr A.P.Singh

- 8.1 Gross and histomorphological effects of therapeutic ultrasound in humerus fracture healing in dogs
Singh M., V.K. Sobti & K.S. Roy
- 8.2 Evaluation of ceramic implant in bone surgery in dogs
Das D.K. & P.K. Samanta
- 8.3 Studies on the use of calcium-hydroxy apatite ceramic implant in bone surgery in dog
Das D.K. & P.K. Samanta
- 8.4 Study of undecalcified ground sections for evaluation of allogenic bone grafts and ceramic implants in goats. An experimental study
Maiti, S.K. & G.R. Singh
- 8.5 Excision arthroplasty of the femoral head in a dog-A case report
Ganesh, T.N., W.P. David, N.N. Balasubramaiam & M.S.D.M. Mohammed
- 8.6 Histopathological evaluation of aluminium- calcium-phosphorus oxide (ALCAP) ceramics in goats: An experimental study
Maiti, S.K., Kalicharan & G.R. Singh
- 8.7 Effect of experimental ligation of femoral artery in distal femoral fracture healing and muscular profile of the thigh in dogs
Patra, S., A.K. Maji & P.K. Samanta
- 8.8 A new technique of bone staining for histological study
Maiti S.K., Kalicharan & G.R. Singh
- 8.9 Evaluation of efficacy of gentamicin and kanamycin for the control and treatment of bone infection in cattle
Singh, S. & J. Singh
- 8.10 Fractures in dogs- an incidence
Dhabhania D.C., P.S. Bansal & S.N. Sharma
- 8.11 Surgical management of a compound mandibular fracture in a mare
Gahlot T.N., G.R. Choudhary & D.S. Chouhan
- 8.12 Repair of long bone fractures by external fixation using PVC pipe in bovine and caprine- A clinical study of 13 cases
Sarkate L.B., V.D. Aher & A.P. Bhokre
- 8.13 Intramedullary horn peg fixation for the repair metatarsal fracture in buffalo calves and goat
Sarkate, L.B., V.D. Aher & A.P. Bhokre

- 8.14 Repair of long bone fracture by horn plating in domestic animals- A report of four cases
Sarkate, L.B., V.D. Aher & A.P. Bhokre.

Session-IX: Radiology

Chairman: Dr. S.S. Rathor

Rapporteur: Dr C.C Wakankar

- 9.1 Effects of short wave diathermy during femoral fracture healing: An angiographic study
Vasanth, M.S. & O. Ramakrishna.
- 9.2 Effects of shortwave diathermy during femoral fracture healing: An osteomedullographic study
Vasanth, M.S. & O. Ramakrishna.
- 9.3 Radiographic contrast studies of the urinary tract in four dogs- (A clinical report)
Ganesh T.N., N.N. Balasubramaniam & M.S.D.M Mohammed.
- 9.4 Observation on clinical and angiographic changes in post-ligation periods of femoral artery in dogs
Patra, S., A.K. Maji & P.K. Samanta
- 9.5 Contrast radiography to diagnose persistent oral palate in a calf
Ray A.K., A.K. Mitra & I. Nath.
- 9.6 Use of double contrast gastrography in canine (An experimental study)
Thilagar, S. & M.S. Mohammed, N.N. Balasubramaniam & W.P.A. David.
- 9.7 Oral cholecystography in sheep-An experimental study
Tayal R., M. Singh, S.K. Sharma, K. Singh & J.M. Nigam.

Session-V: Posters

Sponsored by: New India Insurance Company, Bombay
Anaesthesia & Analgesia:

- 5.1 Amyl alcohol as anaesthesia in the treatment of vaginal prolapse in a goat
Hussain, S., N. Ahmad & D.M. Makhdoomi.
- 5.2 Evaluation of thiopentone in combination with halothane for anaesthesia of dromedary
Singh R., P.K. Peshin, J. Singh, A.P. Singh & K. Singh.

Oral & G.I.tract

- 5.3 A case of interdental overgrowth on craniolateral aspect of mandible in a buffalo
B.V Shivsaprakash, R.S. Dadke & V.Ramkrishna.
- 5.4 Surgical management of parotid tumour in a bullock
M. Hoque, G.R. Singh, N. Kumar & A.M. Pawde.
- 5.5 Biochemical investigations of recurrent tympany in bovine
Ray, R.M., A.K. Ray, A.K. Mitra & I. Nath .
- 5.6 Intestinal obstruction due to fecoliths in a cow-calf- A case report
Jadhav P.T., S.M. Usturge & N.M. Markandeya.
- 5.7 An unusual intestinal abscess and its surgical management in a cat
Ragavendra, M.S. Purohit & M.S. M. Mohammed.
- 5.8 Experimental intestinal strangulation obstruction in goats: bacteriological study
Parvathamma, P.S., A.A. Kumar & O.P.Gupta.

- 8.14 Repair of long bone fracture by horn plating in domestic animals- A report of four cases
Sarkate, L.B., V.D. Aher & A.P. Bhokre

Session-IX: Radiology

Chairman: Dr. S.S. Rathor

Rapporteur: Dr C.C Wakankar

- 9.1 Effects of short wave diathermy during femoral fracture healing: An angiographic study
Vasanth, M.S. & O. Ramakrishna.
- 9.2 Effects of shortwave diathermy during femoral fracture healing: An osteomedullographic study
Vasanth, M.S. & O. Ramakrishna.
- 9.3 Radiographic contrast studies of the urinary tract in four dogs- (A clinical report)
Ganesh T.N., N.N. Balasubramaniam & M.S.D.M Mohammed.
- 9.4 Observation on clinical and angiographic changes in post-ligation periods of femoral artery in dogs
Patra, S., A.K. Maji & P.K. Samanta
- 9.5 Contrast radiography to diagnose persistent oral palate in a calf
Ray A.K., A.K. Mitra & I. Nath.
- 9.6 Use of double contrast gastrography in canine (An experimental study)
Thilagar, S. & M.S. Mohammed, N.N. Balasubramaniam & W.P.A. David.
- 9.7 Oral cholecystography in sheep-An experimental study
Tayal R., M. Singh, S.K. Sharma, K. Singh & J.M. Nigam.

Session-V: Posters

*Sponsored by: New India Insurance Company, Bombay
Anaesthesia & Analgesia:*

- 5.1 Amyl alcohol as anaesthesia in the treatment of vaginal prolapse in a goat
Hussain, S., N. Ahmad & D.M. Makhdoomi.
- 5.2 Evaluation of thiopentone in combination with halothane for anaesthesia of dromedary
Singh R., P.K. Peshin, J. Singh, A.P. Singh & K. Singh.

Oral & G.I.tract

- 5.3 A case of interdental overgrowth on craniolateral aspect of mandible in a buffalo
B.V Shivsaprakash, R.S. Dadke & V.Ramkrishna.
- 5.4 Surgical management of parotid tumour in a bullock
M. Hoque, G.R. Singh, N. Kumar & A.M. Pawde.
- 5.5 Biochemical investigations of recurrent tympany in bovine
Ray, R.M., A.K. Ray, A.K. Mitra & I. Nath .
- 5.6 Intestinal obstruction due to fecoliths in a cow-calf- A case report
Jadhav P.T., S.M. Usturge & N.M. Markandeya.
- 5.7 An unusual intestinal abscess and its surgical management in a cat
Ragavendra, M.S. Purohit & M.S. M. Mohammed.
- 5.8 Experimental intestinal strangulation obstruction in goats: bacteriological study
Parvathamma, P.S., A.A. Kumar & O.P.Gupta.

- 5.9 Experimental intestinal strangulation obstruction in goats: A clinico-haematological study
Parvathamma, P.S., O.P. Gupta & G.R. Singh.
- 5.10 Colonic intussusception in a cow-bull A case report
Usturge S.M., P.T. Jadhav & R.L. Dhole.
- 5.11 Enterectomy and enteroanastomosis following intussusception in a heifer- A case report
Nigam J.M., M. Singh, A.C. Varshney, S.K. Sharma, B. Prasad & R.K. Mandial.
- Hernia**
- 5.12 Surgical management of A huge abdominal hernia in a she-buffalo- A case report
Kadam S.G., G.N. Shelke, S.M. Usturge & P.T. Jadhav.
- 5.13 Coexisting perineal and inguinal hernia in a dog
Richard, M.G., S. Ayyappan, P.H. Tank, W.P. David & N.N. Balasubramaniam.
- 5.14 Perineal cystocele in a crossbred cow
Radhakrishnan C., R. S. Kumar, K. Ameer Jan, N.N. Balasubraminiam, & R.S. George
- Uro-Gential**
- 5.15 Surgical management of rupture of urinary bladder in a bullock
Kadam, A.N., G.N. Dapke, S.D. Nagpurne & S.G. Dhanure.
- 5.16 Surgical repair of bladder rupture in a bullock by ischioectae approach
Vasanth M.S., G.V. Lakshminpathi & O. Ramakrishna.
- 5.17 Incidence of ectopic testis in Kangeyam bulls
Ramasamy, V., B. R.Kumar & R. Seshachalam.
- 5.18 Unusually large bilateral sertoli cell tumor in a dog
Jayaprakash, R., S. Ayyappan, P.H. Tank, W.P.A. David & N.N. Balasubramaniam.
- 5.19 An unusual case of retained pups and pyometra in a bitch.
Ayyappan S., R. Suresh Kumar, S. Thilagar, W.P. Archibald David, & N.N. Balasubramaniam.
- 5.20 Management of an unusually large transmissible venereal tumour of penis in a dog.
Ganesh T.N., P.H. Tank, S. Ayyappan, M.S. Purohit, W.P. A. David & N.N. Balasubramaniam.
- 5.21 A clinical case report of vulval tumor in an aged German Shephard bitch
Bose, P.K., B.B. Das & A.K. Majji.
- 5.22 Studies on surgical recovery of embryos in Osmanabadi and crossbred goats
Dojode, S.V., S.A. Bakshi, D.R. Pargaonkar & N.M. Markandeya.
- 5.23 Recurring venereal granuloma and splenic tumour
Badgajar C.L. & S.Z. Sharma.
- 5.24 Surgical anatomy of the caput and colium of os femoris of buffalo
Bharadwaj R.L. & D.N. Sharma.
- 5.25 Management of bilateral fracture of metacarpals in a buffalo
Simran. R.L. & D.N. Sharma.
- 5.26 Haemopoietic changes following haemodilution and auto-transfusion during elective surgery in dogs
Sukhbir Singh, K.K. Mirakhr & N.K. Sood.
- 5.27 Repair of flexor tendon contracture following sweeny in a thoroughbred filly
Prabhjit Singh Simran.
- 5.28 A comparative histopathological study in healing of skin, muscle and intestine following scalpel and electrosurgery in rabbits
Bhakhtyari J., O.P. Paliwal & Gaj Raj Singh.
- 5.29 Microbiological study of cutaneous wounds in camel
Purohit N.R., D.S. Chouhan, S.N. Rajpurohit & K.N. Sharma.
- 5.30 Observations on the wound healing properties of Himax and Teeburb
Sharma D.N. & R.L. Bhardwaj.

- 5.31 Aspiration, drainage and medication techniques for the treatment of stubborn carpal hygroma in equines
Al-Khatib H.B., S.K. Srivastav, Megh Shyam & S.S. Misra.

Tumors:

- 5.32 Fibroma of sub mandibular salivary gland in a black bear
Pandey S.K., V.P. Chandrapuria & M.R. Malik.
- 5.33 Occurrence of osteoma in a tigress
Abdul Ghani.
- 5.34 Malignant melanoma of canine soft palate
Sen T.B
- 5.35 A case record of rare incidence of embryonal rhabdomyosarcoma (alveolar type) in a bitch
Das. B.B, A.K. Maji, J. Sengupta & P.K. Bose.
- 5.36 Multiple canine cutaneous histiocytoma in an Alsatian bitch and its surgical management
Naveen Kumar, M. Hoque, G.R. Singh & Kalicharan.
- 5.37 Management of cavernous haemangioma in a bitch.
Goti B.S., N.H. Kelawala, R.R. Parsania & B.M. Jani.
- 5.38 Lympho-sarcoma involving mammary gland in an Alsatian bitch and its surgical treatment
Sharda R.S. K Tiwari & R.C. Ghosh.
- 3.39 An atypical myxoma in a dog
Srivastva, A.K.
- 5.40 Cryosurgical treatment of dermoid cyst in a calf
Vasanth M.S. & G.V. Lakshmi pathi.

Successful Surgical Management of Intestinal Obstruction in Large Animals (Bovines & Equines)

Sohan Singh Rathor

Punjab Agricultural University, Ludhiana.

It is needless to emphasize that in order to handle intestinal obstruction in large animals, the anatomy and physiology of the G.I. tract is of paramount importance. There is a great difference between equine and bovine responses to the intestinal obstruction. In equines, it is always an emergency and in bovines one could take a chance. A good, complete and correct history will help in making the perfect diagnosis. Physical and rectal examination will greatly help in arriving at the diagnosis.

History and Examination:

Farmers are usually shaky in giving correct history, but of secretive cross questioning the owner will definitely help the clinician. As far as the equine cases are concerned, the history will be straight, as the time lapse and the response time is very short. Whereas, in bovines, the animal may remain off feed for 4-10 days and still the surgery can be successfully performed which is not always true for horses. Conditions, like, volvulus intussusception, incarceration of the small intestine in bovines may not lead to sudden death and the animal will survive several days without treatment. But same is not true for equines.

Equines:

Severe colic, sweating, rolling on the ground and a bit distention of the abdomen by accumulation of gas and dehydration results in severe pain to horses. The pain is quite intolerable and the horse struggles hard to get relieved of the colic. During this process, he gets himself injured so much that some times death may occur. If the horse is presented within a few hours of the onset of the colic and treatment is ensued, there are good chances to save the case by either providing surgical or medicinal treatment. Wherever good surgical facilities and a team of surgeons are available one could go ahead to perform the surgery confidently, but otherwise surgery should not be attempted. Under general anaesthesia, i.e. xylazine and ketamine or chloralhydras and intraval sodium or combination of any of the above, the abdominal cavity of a horse can be opened on Linea

alba. As soon as the cavity is opened, the distended large intestine will pop up. First of all, relieve the intestinal pressure by puncturing it. Thereafter, locate the obstructed site and do the surgery. Close the peritonium, muscles separately or together and then skin. Keep the horse on liquid or semi-liquid diet. Results are favourable. During this period, the electrolytes have to be injected either by i/v or oral route.

Bovines:

Even with signs of distended abdomen, absence of colic pain, dehydration, off feed, suspended rumination, bovines usually survive. But, pathology of the afflicted organ, often presents difficulties for the surgeons. At times, there is complete obstruction. Rectal examination will show scanty or no feces in the rectum. At times, there may be ruminal impaction leading to intestinal obstruction, also due to dry fodder. Cases have been operated in our department and the success rate is good. The time lapse on the part of the owner is when he reaches us too late, say after 5-8 days, may be he was ignorant about the surgery.

The degree of dehydration not only gives the assessment for fluid therapy, but also commands the prognosis. Most of the time, clinicians are unable to give the correct dose of fluid therapy and the patient remains under dose. Large amount of (8-10 litres) electrolytes i/v, with bit fast speed will, sometimes, if it is of recent origin, relieve the obstruction. One should not take the drastic step to rupture the bowel. Pathological guts are very fragile, oedematous and necrotic.

Surgical:

In bovines, the abdomen is approached by an opening in the right flank under local anaesthesia. While standing, the i/v fluids are to be given and the surgery is performed in the right flank. Very commonly, the small intestines get rotated, twisted or intussusception occurs. Being of long duration, there is extensive pathology and it is advisable that the pathological part is removed and the anastomosis is performed. During surgery, care is taken that neither there is constriction of the lumen nor leakage from the suture lines. Fluid therapy has to be continued for couple of days, either orally or i/v. Antibiotics are a must. Such cases do have loose bowel for a few days which later on becomes normal and the recovery is uneventful.

Determination of the Sensitivity and Predictive Values of Abdominal Wall Distension in Diagnosis of Gastrointestinal Disorders in Cattle.

Nowrouzian, I. & Sharifi, D.

*Tehran Veterinary College, Tehran, Iran.
14155-6453*

The long term study on clinical evaluation of existence or non-existence of monolateral and bilateral abdominal wall expansion was conducted on three protocol in 468 clinical cases since 1978-90.

The extent of abdominal expansion as primary clinical sign, was evaluated and classified on the basis of homogeneity and non-homogeneity of the organs involved by defining incisional area during laparotomy.

The sensitivity and predictive values of test by using nine schematic pictures on the basis of presented shapes by 'Rosenberger' were summarised. These numbers show the noticeable range. In sensitivity value of test (54% in 'b' shape, LDA, mild bloat, intra peritoneal abscess in upper quarter of left abdominal cavity, 94% in 'l' shape, simple distention of abomasum with torsion, simple distension of cecum, and torsion of intestines) and in predictive value of test (31% in 'l' shape ascites, hydroallantois and 100% in K shape advance pregnancy and 'C' shape severe rumen bloat) and are contrary to presented topography by 'Rosenberger'.

The results obtained in this studies, alongwith other clinical findings, are suggested to be used for clinical and surgical diagnosis

Abomasal Herniation and Fistulation in a Buffalo

Sobti, V.K., S.N. Saini, K.I. Singh & D.C. Dhablania

Punjab Agricultural University, Ludhiana.

A buffalo aged 5 years was presented with a big swelling just behind the xiphoid cartilage on the right ventrolateral aspect. Ingesta exuded through the swelling. On laparo-rumenotomy the possibility of ruminal, reticular or omasal fistulation was ruled out. The acidic nature of ingesta indicated abomasal involvement. A couple of days later, the animal

was restrained in dorsal recumbancy under chloralhydrate-thiopental anaesthesia. Swelling and the area around was prepared for surgery. An elliptical incision was given on the skin. Abomasum was having strong adhesions with the surrounding tissues. Adhesions were separated and the abomasum was closed by using chromic catgut no.2 in Lembert pattern. The abdominal wall was closed by interrupted horizontal mattress sutures with double braided silk no. 3. The skin was closed in routine manner. Animal recovered satisfactorily and was discharged after 10 days.

Successful End-To-End Intestinal Anastomosis in Seven Cases of Intussusception.

Abdul Ghani.

Veterinary Polyclinic, Buldhana. (M.S)

Seven clinical cases (six bullocks and one she-buffalo), of intussusception of large intestines, treated by field veterinarians in distant rural areas for four to seven days, were referred to Veterinary Polyclinic during the period from 1979 to 1988. Out of these cases, two bullocks were in recumbant position and were serious with no hope of survival.

Per rectal examination revealed feeling of lump in the intestines of all the cases. Estimation of blood haemoglobin and differential leucocyte count, prior to and after surgery, was done.

Sedation was produced prior to surgery. Right flank laparotomy was performed by infiltrating procain hydrochloride 2% solution at the site of operation. Damaged part of the intestine was excised, and end-to-end anastomosis was done, following aseptic precautions and usual surgical procedure.

Faeces was mucous liquid for two to three days and then liquid faeces without mucous was observed. The animals started ruminating 2 to 5 days post-surgery, according to the condition of the animals. All seven cases recovered eventfully.

A New Technique for Predictable Treatment of Recurrent Anorectal Prolapse in Bovines.

Misra, S.S. & R.P. Pandey

CS Azad University of Agriculture & Technology, Mathura-Campus, Mathura.

Rectal prolapse is a problematic surgical condition confronting surgeons/clinicians. It is more so when it desists medicinal treatment or sedation or low epidural analgesia.

A total number of 18 cases (three males and 15 females), in different age groups, were treated by the authors during a period of three years.

Surgical treatment by employing 'Misra's rectopexy instrument' was found to be predictable in ensuring retention of the prolapsed rectum *in situ* without causing any impediment in defecation etc. In contrast to the conventional purse-string retention. After adequate low epidural analgesia and wheal block at the site of the instrument penetration, the instrument is penetrated in the gluteal region flanking the sacrum. It is crossed through and through the rectal mucosa across the sacrosciatic ligament. The catch of the instrument is then threaded with the umbilical tape and the instrument is withdrawn with the material out. A polyethylene tube piece is already retained on the internal end of the material. The other end is also withdrawn outside by the rectopexer in the preceding manner, the knot is secured with a cover of a foam piece in the gluteal area. Identical procedure is repeated contralaterally and before tying the knot outside the polyethylene tube, pieces are secured snugly against the rectal mucosa. A complete retention is effected without obstructing anal/rectal function. Dressing of the suture and parenteral antibiotics is mandatory till 4 or 5 days when the sutures could be safely removed treating the condition permanently.

Clinical and Haematological Effects of Xylazine in Cow Calves

Shah, D.A, R.R. Parsania
P.V. Parikh & N.H. Kelawala

Gujarat Agricultural University, Anand

Sedative and haematological effects following administration of xylazine in 18 healthy male cow calves was studied. Xylazine was administered at the dose rate of 0.1 mg, 0.2 mg, and 0.3 mg per kg body wt. At each dose rate, 6 animals were used. The degree of analgesia, sedation and muscle relaxation was dose-dependent. In all the animals, there was significant reduction in heart and respiratory rates upto 2 hours after drug administration. There was significant reduction in all the haematological parameters studied and these changes were more marked upto 2 hours after drug administration. The recovery was smooth and uneventful in all the animals.

Clinical and Biochemical Effects of Xylazine in Cow Calves

Patel, B.K., R.R. Parsania, N.H. Kelawala & V. Parikh

Gujarat Agricultural University, Anand.

Sedative and biochemical effects following administration of xylazine in 18 healthy male cow calves was studied. Xylazine was administered at the dose rate of 0.1 mg, 0.2 mg and 0.3 mg per kg. body wt. At each dose rate 6 animals were used. There were dose-dependent changes in the degree of analgesia, sedation, muscle relaxation and salivation. Blood glucose concentration increased significantly 2 hours after drug administration in all the animals, this, however, decreased after 6 hours and nearly reached the base value at 24 hours. The changes in blood urea nitrogen, AKP, ACP, SGOT & SGPT were not significant.

Some Observations on use of Xylazine (Xylazine) In Dogs

C.C. Wakankar

Bombay Veterinary College, Parel, Bombay

Xylazine was used in 12 dogs as a preanaesthetic sedative for various surgical conditions. It provided a good sedation and facilitated the handling of unmanageable dogs.

In three dogs where it was used to restrain the animals for post operative dressing of the wound (haematoma of ear,) the dose was not as much effective in later administration.

Wretching/vomiting was not consistently observed in all the dogs on administration. In two dogs acute conjunctivitis was encountered on repeated administration.

Effects of Diazepam-Ketamine Anaesthesia on Liver and Kidney Functions in Canine Surgical Patients

Pandey, S.K., & I.J. Sharma

College of Veterinary Science & A.H. Jabalpur.

In six bitches weighing from 10 to 16 kg and aged between 8 months to 4 years, ovariohysterectomy was performed after i/v injection of diazepam (3 mg/kg) and ketamine (10 mg/kg). The blood samples were collected before and at 2, 4, 24, 48 and 72 h post-anaesthesia for blood chemistry.

Blood glucose increased from 3.86 ± 6.0 mM at 0 h to 4.65 ± 0.23 and 5.78 ± 0.20 m mole/l at 2 and 24 h post-anaesthesia, respectively, SGPT increased at 2 h (98.65 ± 6.0 n mole and attained highest level of 135.53 ± 6.2 units at 24 h which thereafter fell down to 79.79 ± 5.47 units at 72 h. Similar trend was followed by SAP, except that its level started rising after 4 h post-anaesthesia. Plasma icterus index also increased from 2.35 ± 0.19 units at 0 h to 3.10 ± 0.3 units at 24 h which subsequently came down to 1.90 ± 0.09 units at 72 h. Blood urea nitrogen (BUN) increased at 4 and 24 h (6.68 ± 0.32 and 7.38 ± 0.23 uM, respectively) post-anaesthesia in comparison to 5.3 ± 0.41 mM at 0 h blood creatinine followed similar trend of BUN except that creatinine being better index of GFR, its level increased since very beginning (81.79 ± 8.25 uM at 2 h) which subsequently increased to 95.37 ± 6.53 uM at 24 h as compared to 69.84 ± 6.1 uM at 0 h.

Ketamine Anaesthesia in Zoo Animals and Birds

Kalita, D., B. Dutta & S.N. Gogoi

Assam Agricultural University, Guwahati.

Ketamine hydrochloride was used intramuscularly to anaesthetise two healthy male barking deer (20 mg/kg) for castration, two clouded leopards (10 mg/kg) for treatment of skin disease, one gibbon for amputation of one leg, one lioness (800 mg) for examination of mammary gland affection and one cassowary bird (15 mg/kg) for orthopaedic surgery. The induction and recovery periods were smooth in clouded leopard, gibbon and lioness and violent struggling, paddling, open mouth respiration, etc. were seen in barking deer. Salivation was negligible in all the animals. Analgesia and muscle relaxation were excellent in clouded leopard and gibbon, moderate in lioness and barking deer and minimal in cassowary. The time from injection to complete recovery was 110-120 minutes in barking deer and clouded leopard, 180 min. in gibbon and 270 min. in lioness. Ketamine hydrochloride did not produce surgical anaesthesia in cassowary and it was not found suitable for barking deer.

Experimental and Clinical Evaluation of Diazepam, Xylazine and Ketamine Anaesthesia in Bovine

More, D.B., A.P. Bhokre, L.B. Sarkate & V.D. Aher

Marathwada Agricultural University, Parbhani.

Experimental trials to standardize and evaluate a suitable dose of ketamine in combination with xylazine by using diazepam (0.5 mg per kg) as a preanaesthetic sedative were conducted on 12 male cow calves, divided into three equal groups. Ketamine was administered at the dose rate of 1, 2, 3 mg/kg body weight intravenously in combination with xylazine (0.04 mg/kg) in group I, II and III, respectively. The onset of anaesthesia occurred within 2.75 ± 4 minutes in all the three groups. Longer duration of anaesthesia was recorded in group III (62.25 ± 16.63 min) followed by group II (58.00 ± 16.63 min) and group I (50.00 ± 13.07). Complete recovery from anaesthesia was observed from 95-123 minutes.

Bradycardia, marked transitory respiratory depression and apnoea followed by hyperpnoea

was observed during the period of anaesthesia. Arterial hypotension and sharp rise in central venous pressure was noted immediately after intravenous injection. The combination of diazepam (0.25 mg/kg), xylazine (0.04 mg/kg) and ketamine (2 mg/kg) was evaluated on 30 various clinical cases viz. repair of fracture, repair of diaphragmatic hernia, caesarean section, extirpation of eyeball and penectomy.

Preanaesthetic administration of diazepam prior to xylazine and ketamine injection has reduced the dose of both xylazine and ketamine by about 30 per cent.

Xylazine and Ketamine Anaesthesia in An Eagle

Sharama, S.K., A.C. Varshney, M. Singh & J.M. Nigam

H.P. Krishi Vishva Vidyalaya, Palampur- 176 062

An eagle presented for tibial fracture repair was anaesthetised by a combination of xylazine (5 mg/kg, i/m). Repeated doses of ketamine were required for maintenance of anaesthesia. Hypothermia was evident. Initial tachycardia followed by bradycardia were noticed along with oligopnoea. Biochemical analysis revealed hypoglycaemia, initial hyponatraemia, terminal hyperkalemia with no change in alkaline phosphatase and chloride values during the period of anaesthesia. Haemoglobin and haematocrit were not affected.

Cardiopulmonary Effects of Diazepam and Xylazine in Dogs

Amresh Kumar & Bharat Singh

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

The administration of diazepam 2 mg/kg i.v. and xylazine 1 mg/kg i.m. in dogs had been found to produce surgical anaesthesia lasting from 35-65 minutes with good muscle relaxation and smooth recovery. Increasing the dosage of xylazine to 2 mg/kg had increased the duration of surgical anaesthesia upto 110 minutes. The cardiopulmonary effects of diazepam 3mg/kg and xylazine 1 mg/kg revealed that it causes hypothermia, and significant decrease ($p > 0.05$) in respiratory and heart rates, tidal volume and minute volume. It causes a significant ($p > 0.5$) decrease in mean arterial blood pressure and central venous pressure. Acid-base changes revealed a significant increase in PaCO_2 and a decrease pH. The ECG changes revealed first degree atrioventricular block in 3 dogs at 15 to 30 minutes after administration of xylazine. These cardiopulmonary effects are transitory and last up to the period of anaesthesia. As the animal recovers these affects are readily compensated.

Ketamine-Thiopentone Anaesthesia in Calves

Justin, W.B., A. David, M.S. D. Muthu Mohammed
& S. Balachandran

Madras Veterinary College, Madras-7.

In the present study thiopentone sodium was combined with ketamine hydrochloride to produce anaesthesia in calves. The efficacy of this combination was studied. Twelve apparently healthy male calves weighing between 51 and 78 kg were divided in to two sub-groups. The calves of first sub-group were utilised for anaesthetic, clinical, haematological and biochemical studies and the parameters were recorded before induction and after 10, 20, 40, 60, minutes and 24 hours of induction. The calves of second subgroup were utilized for haemodynamic studies. Mean arterial and central venous pressure were recorded before induction, immediately after ketamine administration and after 10, 20, 40 and 60 minutes of thiopentone administration.

Anaesthesia was induced by i/v administration of ketamine at the rate of 2 mg/kg. Muscular rigidity and limb stretching were noticed. Intravenous administration of thiopentone sodium at the rate of 7.20 ± 0.88 mg/kg abolished muscular rigidity and limb stretching. Anaesthesia was noticed for a period of 13.90 ± 1.23 minutes with good muscular relaxation.

Preliminary Study on the Effect of Pentazocine As Preanaesthetic and Analgesic in Bovine

Bhokre, A.P., L.B. Sarkate & V.D. Aher

Marathwada Agricultural University, Parbhani.

Twelve apparently healthy adult bovines of 12 to 15 years age were randomly divided into two groups consisting of 6 animals in each group. In group-I pentazocine alone was administered intravenously 5 min prior to the intravenous injection of xylazine (0.04 mg/kg) and ketamine (2 mg/kg) mixture.

The average time required for onset of analgesia was 1.54 ± 0.09 min in group-I and 1.80 ± 0.09 min in group-II, respectively. The duration of analgesia was 35 ± 0.53 min in groups-I and 102 ± 8.02 min in group-II. The animals of both groups went into a state of sleep following intravenous injection of pentazocine and pentazocine-xylazine and ketamine. However, the intensity of sleep was more in group-II. The quality of analgesia in group-I and anaesthesia in group-II was satisfactory to good, while muscular relaxation was excellent in both the groups. Occasionally involuntary movements of lips and limbs were noted during the period of analgesia in group-I. Thoracotomy and pericardiotomy operation was performed satisfactorily in animals of group-II and no untoward reaction was observed either during operation or after recovery.

Neuroleptanalgesic Agent as Preanaesthetic to Thiopentone Anaesthesia in Dog

Amresh Kumar

G.B. Pant University of Agriculture & Tech., Pantnagar (U.P)

The neuroleptanalgesic combination, comprising of morphine-diazepam, 2 mg/kg each i.v., morphine-largactil, at the rate of 2 mg/kg i.v. and 1 mg/kg i.v., respectively, in atropine premedicated animals in thiopentone anaesthesia revealed a significant increase ($p > 0.05$) in heart rate, decrease in respiratory rate, tidal volume, minute volume, arterial blood pressure and central venous pressure. Acid base changes revealed a significant increase in PaCO_2 and decrease in pH. These cardiovascular and pulmonary changes were comparatively of lesser magnitude as compared to the animals given morphine alone. There was significant ($p < 0.05$) decrease in dose of thiopentone and increase in the duration of anaesthesia and recovery time. The ECG changes revealed sinus arrhythmia in 3 dogs at 5-15 minutes, atrial fibrillation at 15-30 minutes in 2 dogs and atrioventricular block in 2 dogs at 30-40 minutes. The recovery was smooth and uncomplicated in all the dogs. Neuroleptanalgesic combination potentiated the anaesthetic effects in dogs and could safely be used in canine surgery.

Clinical and Analgesic Effect of Electro-acupuncture for Surgery of Abdominopelvic Organs and Limbs in Goats

Bihari, A., A. Kumar & P. Agrawal

G.B. Pant Univ. of Agri. & Tech. Pantnagar, Nainital (U.P)- 263 145.

The electrostimulation of combination of acupoints ST-36, SP-6, OB-34, GV-20, BL-30 and Tianping for analgesia of abdominal region/organs and Lu-1, TH-8, HC-4, GV-20 and Tianping and GB-40, UB-49, SP-6, Liv-4, GV-20 and Tianping for analgesia of limb were evaluated in goats. The current of 3-5 volts intensity in "adjustable wave form" at the frequency of 130-150 Hz was given to stimulate these acupoints. The stimulation of acupoints for abdominal surgery revealed the variable extent of

anaesthesia of flank, lateral and ventral abdomen, teats and udder, pelvic and perineal regions including anus and vulva, whereas, of acupoints of analgesia for limb of variable extent of scapulo-humeral joint, humero-radial joint upto the middle of radio-ulna and coxo-femoral joint, femoro-tibial joint alongwith entire length of tibia and fibula in fore and hind limbs, respectively.

There was no significant effects on the onset of analgesia, its duration and complete recovery time between various acupoints combinations.

Surgical operations i.e. abomasotomy, rumenotomy, intestinal anastomosis, cystotomy, ovariohysterectomy, enterotomy and caesarean section were performed under abdominal anaesthesia. Under limb anaesthesia arthroplasty of sacrohumeral joint, plating of humerus, femur, screwing of proximal extremity of tibia and arthroplasty of femoro-tibial joint were performed. The anaesthesia was rated from poor to excellent. The electro-acupuncture continued throughout the period of surgical operation. The animals fully recovered in 15-25 minutes after completion of surgery without any complications.

Central Pool Pharmacokinetics of Barbiturates in Camels

Peshin, P.K., R. Singh, R. Sherd, J. Singh, A.P. Singh, D. Sharifi, D.B. Patil & K. Singh.

Haryana Agricultural University, Hisar, Haryana.

Studies were done on 12 camels. In six camels thiopentone was given i/v to produce anaesthetic effect. Blood samples were collected (immediately after completion of injection) at 5, 10, 15, 30, 60 minute and 24, 48 and 72 hour intervals. Additional samples were also collected for determination of plasma concentration of thiopentone at the time when analgesic action of thiopentone was found diminished and at the time of recovery from anaesthetic effects.

Similarly in other six camels, pentobarbitone was injected i/v.

By five minutes after barbiturate administration thiopentone levels in the plasma were about five times less and pentobarbitone levels were about half of the initial values. It is assumed that brain continues to take up barbiturates so long their relative concentration (visa-vis partition co-efficient) is higher in plasma. However, barbiturates are also simultaneously taken up by other rapidly perfused tissues, like, heart, liver, kidneys and other splanchnic organs. The uptake by these organs accounts primarily of initial rapid fall in the plasma levels of both thiopentone and pentobarbitone or disappearance from the plasma. The overall rate of disappearance of thiopentone from plasma was higher than that of pentobarbitone and seems to be due to higher lipid solubility of the former. As the plasma level falls, the brain barbiturate concentration also starts declining. Thereafter, the anaesthetic barbiturate from rapidly perfused tissues is redistributed to relatively lesser or slowly perfused tissues. This accounts for its slow rate of disappearance from plasma.

Thiopentone could not be detected in samples collected at 24 hours and onwards, while pentobarbitone was still present at 24 hours but thereafter was not detected.

Lumbar Segmental Epidural Analgesia in Buffalo Calves

Jagtap, S.T., V.S. Panchbhai & A.P. Bhokre

Marathwada Agricultural University, Parbhani-431402.

Twenty four buffalo calves of either sex, aged 6-18 months had 40-100 kg body weight were utilized for lumbar segmental epidural analgesia. Lignocaine hydrochloride 2% was used in group A. Hyalase was added 10 i.u./ ml in group B. Adrenaline (1:1,00,000) was added in group C and benzyl alcohol (2.25%) in group D. Hyalase shortened the latent period from 2.83 ± 0.42 minutes. It was increased on addition of adrenaline upto 8.67 ± 1.43 minutes and 4.17 ± 0.54 on addition of benzyl alcohol. Duration of analgesia was 50 minutes with 2% lignocaine hydrochloride, which was decreased significantly ($p > 0.1$) on addition of adrenaline upto 73.83 ± 2.44 minutes and also increased to many-folds on addition of benzyl alcohol upto 283.33 ± 94.67 minutes. A continuous drop in intra-abdominal pressure at maximum depth of analgesia was noted. Other physiological and biochemical values remained unaffected.

Comparative Evaluation of Analgesia of Paralumbar Fossa in Bovines

Jagtap, S.T., V.S. Panchbhai & A.P. Bhokre

Marathwada Agriculture University, Parbhani.

Experiment was conducted on twelve cattle of 500-600 kg body weight and about 10 years old to produce analgesia of flank by three different techniques. Latent period of analgesia by different techniques was 11.33 to 14.00 minutes which was shortened upto 7 minutes by addition of hyalase in group B and benzyl alcohol in group D. Duration of analgesia was 53 to 75.67 minutes in group A, which was prolonged by addition of adrenaline (1:1,00,000) upto 108 minute and 148.33 minutes by addition of benzyl alcohol in group D. Lumbar segmental analgesia was found superior having quicker onset, longer duration of analgesia, less quantity of drug, and adequate muscle relaxation. Physiological parameters, like heart-rate, respiratory rate, intrabdominal pressure and rectal temperature were not affected at different levels of analgesia with different techniques in all groups.

Studies on Epipleural and Paraneprhic Novocaine Blockade in Primary Indigestion of Buffaloes

Prajapati, A.K., D.A. Shah, B.M. Jani & R.R. Parsania

College of Veterinary Science, Anand

Fifty clinical cases of primary indigestion in buffaloes were divided randomly into five equal groups and were subjected to epipleural novocaine blockade (Gr.I), paraneprhic novocaine blockade (Gr.II), conventional treatment, supplemented with epipleural blockade (Gr.IV), and conventional treatment alone (Gr.V) using rumenotoric drugs and vitamin B-complex with liver extract. Animals of group III and IV comprised those animals which had failed to respond favourably to the conventional treatment. Superior and quick clinical response was observed in animals given novocaine blockade therapy, as compared to conventional treatment. Paraneprhic blockade was found to be superior and easier to perform than epipleural blockade. Changes in various haematological, blood biochemical and ruminal fluid parameters, before and after treatment, were non-significant in all the groups.

Survey of Anaesthetic Practices in Small and Large Animal Surgery in Greater Calcutta and Its Evaluation

Mallick, H., A.K. Maji, P.K. Bose, & B.B. Das

*Bidhan Chandra Krishi Viswavidyalaya,
Mohanpur, West Bengal- 741252.*

Detailed investigation on anaesthetic techniques for both small and large animal surgery were made from January, 1988 to September, 1990 in 4286 surgical cases in different veterinary hospitals and clinics in Calcutta and its suburban areas. The side effects, complications and hazards were recorded. The anaesthetic effect of the combinations of pentazocine-diazepam, thiopentone-diazepam and atropine diazepam-pethidine were evaluated in 15 dogs. Clinico-anaesthetic and haematological parameters were studied. The combination of diazepam and thiopentone sodium appeared most suitable.

Modified Method for Patellar Desmotomy

Tank P.H.
Gujarat Agricultural University,
Sardar Krushinagar 385 506

A modified closed method for medial patellar desmotomy was successfully employed in clinical cases of chronic subluxation of patella in cattle and buffalo. The technique, its advantages and complications are discussed.

Foetal Mummification Treatment-A New Surgical Approach

Rajasekaran, J., S. Balasubramanian & A. Subramanian

Madras Veterinary College, Madras- 7

An Ongole cow of about five years with the history that the animal has not exhibited estrum and pregnancy for about 4 months was presented to the Obstetrics Unit of Madras Veterinary College. Clinico-gynaecological examination revealed the presence of uterus in the pelvic cavity with absence of placentomes, foetal fluids and a single mummified foetus with membrane tightly wrapped over the foetal mass. Surgical treatment through ischio-rectal fossa approach was successfully attempted since in this condition, fetal fluids were absent and fetal mass was small. The operation was performed under epidural anaesthesia. A vertical incision of about 3 inches was made on the skin over the ischio-rectal fossa of the right side. By blunt dissection of the fascia, access to the uterus in the pelvic cavity was made and the cornua was hooked. At the highest point of mummy, incision was made. A small incision was also made on the uterine wall and the mummified fetus was removed. The uterine incision was sutured with No. 3 catgut using Lembert technique and repositioned into the pelvic cavity. The skin was closed by using black braided silk in a mattress fashion. The animal was treated with routine antibiotics and its recovery was uneventful. This approach gives a better visualization, easy exploration, negligible bleeding, treatment without complication of peritonitis and above all, minimal days of hospitalisation. In another case also this gynaeco surgical approach was successful.

Analysis of 72 Cases of Dystocia in Animals

Ashturkar, R. W.

Veterinary Dispensary, Dharmabad
Dist. Nanded 431809

The present study reports the incidence of various types of dystocia cases in different types of animals. A total 72 cases (Cow 18, Buffalo 16, goat 15, Sheep 2 and Donkey 1) suffering from dystocia were presented at Veterinary Dispensary, Dharmabad during September, 1988 to August, 1992. Occurrence of foetal dystocia (79.25%) was more common than the maternal dystocia (20.75%). Uterine torsion (9), mummification and maceration of foetus was found with 37 cases, while narrow pelvic inlet was recorded in 3 cases, incomplete dilatation of uterine cervix was associated in 8 cases and faulty presentation of foetus was found in 15 cases. Out of these dystocias, 22 foetus were born alive and 50 were found dead due to quack-handling, long distance and late presentation of animals to dispensary. Treatment consisted of correction of foetal presentation, manipulation and correction of torsion and caesarean section.

Complications of Castration in Horses - A clinical report

Parsania, R.R., K. Sukumaran, P.B. Parikh, N.H. Kelawala, D.B. Patil & B.M. Jani.

Gujarat Agricultural University, Anand.

Complications following castration by open method/primary closure technique in 42 clinical cases are described. The common complications seen were champingnon (3), scirrhus cord (2), myiasis (6) and haemorrhage (1). The surgical management of these complications is discussed.

Effect of Sodium Diphenylhydantion in Normal Skin and Infected Tissues

Davood, S. & I. Nowroozian

Tehran Veterinary College, Tehran- IRAN

Sixteen horses were treated with topical sodium diphenylhydantion (phenytoin sodium) in an open trial daily up to weeks

Six horses had infected wound caused by *Staphylococcus aureus* and *E.coli*. The other ten horses had contaminated and uninfected wounds. The mean healing time was 2 weeks for contaminated compared to 4 weeks for infected deep wounds. All the horses had complete healing except in two horses, whereas one required 7 weeks and the other one required skin-graft.

Sodium diphenylhydantion, due to its positive effects on wound healing, rapid pain relief, wider range of safety and easy to use, is suggested for local treatment of infected and contaminated wounds.

Antimicrobial Efficacy of Three Antiseptics on Septic Wound In Bovines - A Comparative Study

Kumar, B. R. & M.S. D. Muthu Mohammed

Madras Veterinary College, Madras.

A comparative study on the efficacy of three commonly used antiseptics for septic wound treatment of bovines was conducted at Large Animal Surgical Clinic, Madras Veterinary College.

Clinical cases reported to the hospital with infected wounds were selected and randomly divided into three groups each comprising 12 animals. In group I, tincture iodine was used for wound dressing. In group II povidone iodine (Wokadine) and in group III, tincture cetrimide was used for wound treatment. Pus swabs were collected from the site of wound before treatment for cultural examination to identify the etiological organisms and assess the bacterial load.

Post treatment bacterial load, local tissue reaction and wound healing pattern were recorded and compared in three groups. Povidone iodine showed effective control of wound infection with little tissue reaction compared to tincture iodine which showed

moderate response, while tincture cetrimide showed least response in controlling the infection.

Role of Gelatin Granules As Haemostatic and Wound Dressing Agent In Ruminants

Kumar, B.R., T.P. Sastry & M.S. D. Muthu Mohammed

Madras Veterinary College, Madras.

Pharmaceutical- grade gelatin material coupled with antibiotic dusting powder (Neosporin) was processed into fine granules at Central Leather Research Institute, Madras. The granules were used in the surgical clinic. The haemostatic, wound healing and infection control properties of the material were studied.

Surgical Management of Gun Shot Wounds

Kumar, N., G.R. Singh, M. Hoque, A.M. Pawde & H.C Sethia

Indian Veterinary Research Institute, Izatnagar- 243122.

Eight cases of gunshot injuries in different species were treated surgically.

The position of bullets in all cases were diagnosed by radiography and removed surgically. Post-operative care included administration of antibiotics hydrocortisones, analgesics & dressing of wounds. All the cases showed uneventful recovery except filly, in which death occurred within 12 hours of injury. The stallion became permanently lame due to osteoarthritis of the hock joint.

Extraction of Tusk in Elephant

Pathak, S.C.

Veterinary College, Guwahati, Assam.

Tusks are simple teeth found in the upper jaw embedded in deep bony sockets extending to a considerable distance. Sometimes, it is necessary to cut off a portion of one or both of the tusks; for instance, when they are badly split or cross one another. Some owners prefer to cut healthy tusks and sell. Tusks are also found to be stolen after cutting it close to the lips. This is a very popular and remunerative pastime. When tusks are cut very short, it bleeds after operation and the pulp cavity is exposed. Frequently such tusk split and decay. Once suppuration occurs, healing does not take place even for years. Extraction of such tusks becomes imperative.

Extraction of seven such tusks in 6 domestic elephants were done under i/v xylazine-ketamine anaesthesia. Extraction was perfect and the anaesthetic combination was found excellent. Operation was performed in lateral recumbency and the tusks were uprooted after freeing from the firmly attached socket. Finally, with the use of chain wrench the tusks were extracted. The socket filled up with granulation tissue within 3-8 months. Regular dressing and one or two courses of antibiotics are essential.

Hydramnios in a Non-Descript Cow

Markandeya, N.M., D.R. Parganokar, A.P.
Bhokre, S.A. Bakshi & S.V. Doijode

*College of Veterinary & Animal Sciences M.A.U.
Parbhani-431 402.*

A case of hydramnios in non-descript cow associated with defective cranium in a calf is reported. Caesarean section was taken with right flank approach. The viable male calf was delivered with full development of the body parts indicating completion of gestation period.

Thoracotomy In Bovine

Patil, K.R., P.V. Chaudhary, A.D. Patil, S.J.
Bawiskar & A.B. Sapkale

Veterinary Polyclinic, Dhule (M.S.)

Fifth rib was resected under local anaesthesia. Pericardium was punctured with 15 gauge needle and fluid in the pericardial cavity was confirmed. The pericardium was cut and nearly 3 to 4 litres of foetid odour fluid was drained out. The cavity was irrigated with 1:1000 P.P. lotion followed by 0.5% metronidazol. Bistrepen 2.5 g was put in the cavity. The cavity was kept open.

The resected rib was sutured with aluminium wire. The wound was closed. A two inches bore canula was kept in inter costal space for drainage. Post operatively Vetcor, 5 ml and Gentamor 4 g was administered i/m. Out of ten thoracotomy performed, 2 died while operation due to severe adhesions and 2 died 3 days after the operation. Six animals recovered fully.

Oral Commissurorrhaphy in A Camel-Calf

Gahlot, T.K., D. Sobhagya, G.R. Chaudhary
& D.S. Chauhan

Rajasthan Agricultural University, Bikaner.

A six month old camel calf was presented with a history of tear of oral commissure at the time of assisted delivery. It led to exposure of the cheek teeth, hanging out of tongue and drooling of saliva through the enlarged space. Commissurorrhaphy was undertaken by sedating the camel with xylazine and achieving analgesia by infraorbital nerve block. Following freshening of edges or debridement, vertical mattress silk sutures were applied. The calf was kept on liquid diet for seven days and till then the mouth was kept muzzled. Sutures were removed after 20 days, following uneventful recovery.

Incidence of Various Neoplasms in Canines of Hospital Population

Kelawala N.H. B.M. Jani P.R. Paraniya P.B. Jani E. K.S. Parjapati

College of Veterinary Sciences, Anand (Gujrat)

A clinical survey of 5977 canine cases brought to the Veterinary Hospital during five years (1987-1991) revealed 51 cases of various types of tumours (0.85%). Canine neoplasms comprised 15.94% of 320 cases, in different species of animals. Females (52.94%) were affected more than the males (47.06%). Venereal granuloma was most commonly observed tumour (19.60%). Other frequently observed tumours were fibrosarcoma (17.64%), squamous cell carcinoma (15.68%), fibroma (15.68%) and papilloma (11.76%). Squamous cell carcinoma of mammary gland (50%) was more common as compared to other body area. Less frequently recorded tumours were multiple mastocytoma, myoepithelioma, fibro-chondro-osteoma, ductular adenocarcinoma, cavernosus haemangioma, seminoma, anal gland adenoma, capillary haemangioma, pleochromocytoma and granulocytic leukemia.

Tracheal Tumour in A Dog

Badgujar, C.L. M.B. Mantri & S.Z. Sharma

Bombay Veterinary College, Parel, Bombay

A male Pomerian dog aged six years was presented to the clinic with the history of severe respiratory distress and cachexia. On radiological examination, a nodular soft tissue growth was evident inside the trachea in the middle of neck. Tracheotomy was performed caudal to the tracheal growth to excise the mass, successfully.

Comparative Evaluation of Calcium Chloride, Cadmium Chloride and 'Talsur' in Chemo-sterilization of Male Dogs

Datta, A.B., A.K. Maji & P.K. Samanta

Bidhan Chandra Krishi Viswavidyalaya
Mohonpur, Nadia- 741 252, West Bengal

Intratesticular injection of 5%, 7.5%, 10% and 12.5% solution of calcium chloride with 2% xylocaine produced no pain, mild tenderness and inflammation in comparison cadmium chloride 0.5 mg/kg and 2 ml of 'Talsur' produced severe pain, moderate tenderness and inflammatory reaction. The post-injection increase of testes size was gradual in calcium chloride and well marked (11%) in cadmium chloride and 'Talsur'. Testicular weight slightly increased upto 14 day and then declined upto 28 and 56 days of observation in all the groups. Cadmium chloride and 'Talsur' induced testicular tubular necrosis replaced by fibro-collagenous tissue resulting complete atrophy and sterility of the animals. In calcium chloride treated animals regeneration of tubules occurred. Calcium chloride 7.5% and 10% showed the best results.

Studies on Control of Stray Dog Population in Calcutta With a New Chemosterilizing Agent

Datta, A.B. & Samanta, P.K.

Bidhan Chandra Krishi Viswavidyalaya, West Bengal.

In the present study chemo-sterilization on 24 adult male dogs were studied by intratesticular injection with 5%, 7.5%, 10% and 12.5% solution of calcium chloride. An amount of 2ml calcium chloride was added with each injection of 0.5 ml of 2% xylocaine. Physical status of the animal did not alter in any case. There was no pain, fever or severe inflammatory reactions or any unfavourable complication in any treated dog. The histomorphological findings showed that the testicular tissues were completely replaced by fibro-collagenous bands on the 56 day of observation. The single intra-testicular injection with 7.5% and 10% solution of calcium chloride were found to be 100% effective as chemosterilizant in male dogs.

Intra-Scrotal Torsion of The Testicle in A Dog

Ganesh, T.N., N.N. Balasubraminiam, W.P.A.
David, R.S. Kumar, & M.S.D.M. Mohammed.

Madras Veterinary College, Madras- 7

A seven year old male Doberman dog was reported to the College Clinic with the scrotal swelling. After the routine clinical examination and laboratory investigations, the animal was operated to explore the scrotal sac. Intra- scrotal torsion of one testis was noticed and it was removed along with the normal testis. The animal recovered uneventfully and the histopathological examination of the affected testis revealed no evidence of neoplastic tissue.

Incidence of Os-Clitoris in Three Female Dogs

Maji, A.K., P.K. Bose & B.B Das

*South Calcutta Veterinary Clinic, 59, Ramesh
Mira Road, Calcutta - 700 025*

Three virgin anestrus bitches: one G.H.D., 7 months of age, a Doberman, 9 months old and a black Cocker Spaniel 10 months of age having hard, long projected ossified mass with local genital irritation and scanty sanguinary discharges in clitorites were operated for the removal of the same under tranquilization and local infiltration. Radiologically and clinically these were like os-penis in normal male. The hormonal profile before and after operation in respect of estrogen, progesterone and testosterone were analysed.

Physical, Radiological, Histo- morphological and Karyotypic Features in Goats With Ectopic Urinary Pouch and Genital Abnormalities

Shivaprakash, B.V., V. V. Kasralikar, V.
Ramkrishna & S. P. Kumar.

Veterinary College, Bidar.

One kid and two goats of closely related herds were found to have an abnormal pouch beneath the pelvic brim outside the body. The pouch was pinkish with normal serosal colour in the one week old kid and was distending every 3 hours to discharge urine through rudimentary urethra. The kid was cryptorchid at 1 week and had scrotal testis by 3 months. The pouch turned black and was atrophied after 4 months in the kid and the same features were also observed in a 6 month old and a 2 year old goat during the four month observation period.

The penis was very short in all the three goats and was opening within the pouch in the kid just posterior to scrotum and just anterior to scrotum in other two goats. The goats showed interest in mounting over the female goats but were unable to thrust. The histological features of seminiferous tubules and interstitium of the testicles and also that of the ectopic pouch is discussed. The radiological and karyotypic findings are also being discussed.

Clinical Evaluation of Experimental Neurotmesis and Neuroanastomosis in Buffalo-calves

Chaudhary S. & D.M. Tadkod

G.A.U. Sardar Krishinagar

The present study was conducted in six experimental male-buffalo calves. The neurotomy of radial nerve was performed after inducing neurotmesis. Immediately after surgery, the limb was immobilized with the help of bamboo splints. Three of these animals were treated with local corticosteroid and parenteral nerve tonics. Other three animals served as controls. All the animals were examined weekly for 28 days.

During 1st week the animals were not able to get-up (stand) at their own. Flexion of knee, knuckling of fetlock, dragging of limb and atrophy of extensor muscles was noticed. By 14th day, the animals were able to stand on their own. However, dragging of the limb and stumbling still existed. Remarkable improvement could be observed by 21 day post-operatively. The only observable symptoms were occasional knuckling of the fetlock, stumbling on uneven ground, difficulty in clearing obstacle and flipping of the affected limb. By 28th day all the animals had returned to functional normalcy, the only symptoms, observed were occasional stumbling while running and flipping of the limb.

There was no difference in the clinical symptoms between the treated and the controls.

Studies on Intra-neural Neurotomy of Sciatic Nerve in Goats

Mogha I.V. & M. Hoque

Indian Veterinary Research Institute, Izatnagar

The experiment was carried out in six goats to determine the prognosis of intra-neural neurotomy of sciatic nerve. The sciatic nerve was approached from medial side at mid femoral region, under local infiltration anaesthesia and secured with B.P. blade. It was then sutured by intra-neural neurotomy technique using 5-0 silk. The skin incision was closed in the standard manner. The animal was treated with electrotherapy (Neuropan-0,

Meditron Ltd) on alternate days post-operatively. The efficacy of the suturing technique was evaluated on the basis of clinical examination daily and electrodiagnostic testing (EDT) on alternate days, till recovery.

The animals were unable to bear weight on affected limbs for the first 5-10 days. Lameness was present for 20 days and the animals took 30 days for near-normal movement. EDT findings further confirmed the clinical observations. The results indicated that intra-neural neurotomy technique might be a means of neuroanastomosis of sciatic nerve in goats. However, it warrants further detailed and long term investigation.

Therapeutic Evaluation of Dimethyl sulfoxide (DMSO) in Endotoxin Induced Arthritic Buffalo Calves: Effect on synovial fluid

Goti B.S., B.M. Jani & R.R. Parsania

Gujarat Agricultural University, Anand.

Acute arthritis of knee joint was induced in twelve buffalo calves by intra-articular administration of *E. coli* endotoxin 0.4 mg/kg body weight. These buffalo calves were divided randomly into two equal groups (A and B). Group A served as control and no treatment was carried out, whereas, in group B treatment with medical grade dimethyl sulfoxide was carried out intra-articularly at 2, 10, and 24 hours after induction of arthritis. Synovial fluid samples collected at various intervals revealed significant reduction in MPQ, glucose concentration and lymphocyte and monocyte per cent, whereas significant increase was observed in TLC, TP, neutrophil and AKP, ACP and LDH enzyme activities in the control group. Similar trend in all these parameters was observed in group B also, but, as compared to control group significant differences were observed towards normalization in these parameters indicating a beneficial effect of dimethyl sulfoxide in the treatment of arthritis.

Evaluation of Different Treatment Regimen in Induced Infectious Arthritis in Buffalo Calves

Kumar, A. & H. Singh

G.B.Pant University of Agri & Tech., Pantnagar

Twenty five buffalo calves were divided into 5 equal groups. Infectious arthritis in carpal joint was introduced with *Staph. aureus* in all the animals. After establishment of arthritis different treatment regimen were given on day 7 onwards, except, in Group I which served as control.

Treatment regimen consisted administration of i/m and i/articular antibiotic, i/v antibiotic in local vein, i/v antibiotic in local fluid (HTSF) and tranfusion of homologous synovial fluid (HTSF) alone. For analysis of findings, synovial fluid and blood were collected on 0, 7, 15 and 30 day. Several haematological and biochemical parameters were studied. All the animals were sacrificed on day 30 and their articular cartilage from affected joint was collected for histopathologic examination.

All the four treatment regimen were evaluated by comparing the different parameters studied.

Circumferential Tracheal Replacement with Homologous Tracheal Grafts: An experimental study in goats.

Hoque, M., G.R. Singh I.V., Mogha & N. Kumar

Indian Veterinary Research Institute, Izatnagar

The experiment was undertaken in six adult goats to evaluate the replacement of total tracheal rings by homologous tracheal cable grafts from cadavers. The mid cervical trachea was exposed under local analgesia. Segment of four tracheal rings was excised out. The circumferential defect was repaired by deep freeze preserved homologous tracheal cable graft of identical shape and size. The graft was sutured with host trachea at anterior and posterior extrimities with end-to-end continuous suture using 2-0 catgut.

The animals were observed for a maximum period of one month. There was no air leakage or respiratory discomfort during the observation period. Specimens from graft area were collected at day 7, 15 and 30 post-operatively.

Radiographs revealed tracheal patency in all animals except in one, where there was slight stenosis at the graft site. Histopathological examination showed fibrous encapsulation of the cadaver grafts. There was no discontinuity at suture line and slight adhesion with surrounding tissue was evident.

Hence, tracheal homografts from cadaver may be used to repair circumferential tracheal defects, however, it warrants further long-term studies.

Clinico-haematological, Histological and Radiological Studies in Experimental Cardio-esophageal Stricture in Dogs.

Samanta, G.K., A.K. Maji, S. Patra, P.K. Bose & B.B. Das

B.C.K.V. Mohanpur, Nadia, West Bengal.

Stripping off the mucosa from cardio-oesophageal junction and suturing the same with the rest of the wall with silk were done for producing experimental stricture. After transient anorexia for first two post-operative days, the animal developed normal food habits and appeared clinically normal within 10 post-operative days. Blood parameters as revealed by statistical analysis were non-significant and within the physiological limit. Absence of mucosa and patchy haemorrhage in muscle layer were seen at 7 post-operative day. Muscle layer, edema, inflammatory cells in interstitium and some regenerating mucous glands were seen by 15 post-operative day. Deposition of fibro-collagenous band and regeneration of multilayer cubical epithelial cells were noticed by 30 post-operative day. Fibrocollagenous tissue in submucosa, well defined mucosa and grossly no stricture were observed by 60 post-operative day. The radiographic findings corroborated with those of histopathology with no evidence of blockade of positive contrast medium at above mentioned days of observation.

Wound Healing Properties of Karanj (Pongamia Glabra) Leaf Extract and 'Skinoment' Ointment

Pawde, A.M., Amarpal, S.N.Sarkar, B.N. Kowale, V.K. Rao, T. More & M. Hoque

Indian Veterinary Research Institute, Izatnagar

Karanj (Pongamia glabra) leaf extract (Alcoholic leaf extract), 10% in castor oil and skinoment ointment (Arosol chemicals) have been evaluated in experimentally created gap wounds in rabbits. The extent and pattern of healing was evaluated on 7, 14, 21 and 28 days of application of medicament. Creation of wounds and application of treatment did not produce any noticeable physiological alterations in either group of animals.

After few hours of application skinoment was found to have exerted more anodyne and astringent effects on the wounds. However, karanj leaf extract application also caused rapid dryness and contracture of wounds in initial phase of treatment. There was neither suppuration nor miasis in both the treatment groups. Skinoment also served as a good fly repellent. On gross examination, the wounds treated with skinoment healed rapidly with less scar tissue as compared to karanj leaf extract. Results of histopathological and biochemical studies will be discussed.

A Comparative Study on Healing of Skin Muscle and Intestine Following Scalpel and Electrosurgery in Rabbits

Bakhtyari, J. & G.R. Singh

Indian Veterinary Research Institute, Izatnagar

Twelve adult rabbits weighing 1- 1.5 kg divided equally into two groups A and B were used. In animals of group A, laparotomy and enterectomy was performed using scalpel blade, whereas in animals of group B electrosurgery was used for the purpose. The cut ends of intestine were anastomosed with single layer inversion sutures using black braided silk 3/0. The laparotomy wound was sutured in layers using simple continuous sutures with chromic cat gut 2/0 for muscle and interrupted mattress sutures with silk 2/0

for skin. Two animals from each group were sacrificed at day 7, 14 & 21 post operatively for evaluation of status of healing using different parameters.

In all but one animal of group B, the skin wound healed by first intention and there was no indication of infection. At day 7, infection was present in deeper layers of muscle in one animal of group B. However, in subsequent intervals there was no apparent sign of infection and status of wound healing was comparable in all the animals of both the groups. The extent and degree of adhesion present between the site of anastomosis and adjacent structures at day 7 reduced with the passage of time and it was negligible at day 21 in both the groups. At day 14, however, adhesion was relatively more in degree and extent in animals of group A. The constriction of lumen at the site of anastomosis which was more at day 7, reduced gradually and it was negligible at day 21 in both the groups. In none of the animals, there was leakage from the site of anastomosis except in one animal of group B leakage was observed at day 7. Micro abscesses at the site of anastomosis were invariably present in animals of both the group sacrificed at day 7. In subsequent intervals, there was no apparent sign of infection at the site of anastomosis except in three animals where infection was present from mild (1 animal each in group A & B) to severe degree (1 animal group A). The bursting pressure recorded at day 7 ranged between 90-126 mm Hg. It showed marked increase in subsequent intervals, the bursting pressure recorded at particular interval was more in animals of group B than in group A.

Tissue Reaction of Plastic vs Silk as Suture Material: A preliminary study

Pawde, A.M., Amarpal, A.K. Sharma, G.R. Singh, K. Pratap, M. Hoque & N. Kumar.

Indian Veterinary Research Institute, Izatnagar

Plastic (packing material) and surgical silk suture material were used to suture twenty four dorso-lumbar wounds of 4 x 2 cm. size in buffalo calves to study the tissue reaction on 7, 14 and 21 post-operative days.

Tissue reaction caused by surgical silk was more intense than that by plastic (Packing material). On 7 day, there was necrosis adjacent to the line of union in the wounds sutured by silk whereas the wound gap was filled with proliferated fibroblasts in plastic sutured wounds. At 14 day the silk sutured wounds showed massive infiltration of large mononuclear and giant cells forming a granuloma around the remnants of silk suture material whereas healing was complete with perfect union without any evidence of granuloma formation. On 21 day complete regeneration of epithelium was seen in both type of wounds. The silk sutured wounds revealed massive fibrocellular reaction in the dermis but the reaction in hypodermis was subsided. In the plastic sutured wounds the scar composed of muscle fibres in deep dermis indicated the tendency to regenerate and the reaction in hypodermis was totally subsided.

It appeared that plastic suture material induced lesser tissue reaction than silk and could be used safely for suturing skin wounds.

Standardization of Surgical Procedure for Embryo Transfer in Small Ruminants

Thilagar, S., D. Kathiresan, & V.D. Padmanban

Madras Veterinary College, Madras

Twelve adult superovulated does were subjected for this study. As a anaesthetic regimen, combination of diazepam (0.5mg/kg-i/v) plus thiopental sodium (15g/kg-i/v) and diazepam (0.5mg/kg, i/v) plus ketamine (10-15mg, i/v) were used in six animals each. Combination of diazepam

and ketamine were found to be ideal and safe anaesthetic.

Flushing and collection of fallopian tube content was carried out by using pointed hypodermic needle and ordinary polythene tube as well as blunt hypodermic needle (18 and 19G) and disposable scalp vein set tube. It was observed that blunt hypodermic needle and scalp vein set tube were ideal to collect the fallopian tube content without any seepage and infiltration of flushing medium.

Left flank approach (caudal) and midventral (post umbilical) approach were practised in 6 animals each considering the further usage of animal. Midventral approach was found to be an easy access for collection with less complications.

Evaluation of Dimethylsulfoxide With and Without Synovial Fluid Transplant for Treatment of Acute Arthritis in Calves

Rishi, T., I.S. Chandana, B.A. Moulvi, J. Singh & A.P. Singh

Haryana Agricultural University, Hisar.

The study was done in 20 calves which were divided in 5 groups of 4 animals each. Two animals served as controls. Acute aseptic arthritis was induced in all the animals by injection of one ml turpentine oil into right carpal joint. Five different treatment regimens were evaluated. On the basis of clinical signs, radiography, synovial fluid analysis and gross and microscopic studies on joint capsule and cartilage; the animals in which autologous synovial fluid (ASF) alongwith dimethylsulfoxide (DMSO) was transfused into the joints, responded most favourably. In therapeutic efficacy, this was followed by administration of ASF or DMSO separately into the joints. The use of phenylbutazone (i/m) or topical DMSO had only marginal therapeutic effect.

Bacterial Isolates from Experimental Homogenous Lamellar Corneal Transplantation

Chabra, R. & D.C. Dhablania

Punjab Agricultural University, Ludhiana

An experimental study, consisting of 24 cow calves, was designed to perform homogenous lamellar corneal transplantation. Ocular swabs for bacterial isolation and culture sensitivity, were taken at 0, 3, 7, 15, 25 and 55 day post operatively. A total of nine bacterial genera were recovered, *Staph epidermidis* being the most predominant followed by *Pseudomonas spp.* *Micrococcus spp* was isolated only from one case. Sensitivity testing of these isolates revealed Ciprofloxacin and Norfloxacin as the most effective drugs and Polymyxin-B being the least effective. The treatment of these operated calves was carried on the basis of culture sensitivity results. The infection was cleared in all cases except in one between 25 to 55 day postoperatively.

Effect of Salivary Epidermal Growth Factor on Cutaneous Wound Healing in Bovine- I (Clinical Evaluation)

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

H.P. Krishi VishvaVidyalaya, Palampur

Efficacy of salivary epidermal growth factor was evaluated in 50 equidimensional (20m x 30m) full thickness cutaneous wound created on either side of lumbar spine in 5 cow calves at different time intervals till 26 days. The wounds on right side of vertebral column were applied homogenous saliva and used as test wounds, whereas the left side wound were used as control. The wounds were examined clinically for purulent exudate. Appearance of wounds elicited hypermia in early phase, reduction in acute inflammatory response, faster wound contraction, scar tissue formation and epithelization when compared with control wounds. The cavities of test wounds were filled with granulation tissue nearly two third of its size by 10 to 12 and filled completely by 18 to 22 day with thick scab. The present area healed was higher

at different intervals and epithelization at the periphery of wound was distinct on day 21 in saliva treated wounds.

Effect of Salivary Epidermal Growth Factor on Cutaneous Wound Healing in Bovine- II : Histomorphological Study.

Varshney, A.C., D.N. Sharma, M. Singh, S.K.
Sharma & J.M. Nigam

H.P Krishi VishvaVidyalaya, Palampur.

The tissues for this investigation were collected from the animals as stated in the first part of the study (clinical observation) on 3, 7, 14, 21 and 28 day after creation of the wounds. The studies revealed a faster rate of connective tissue regeneration and epidermal renewal in saliva treated group of wound when compared to control. The acute inflammatory response was subdued on day 3 in treated wound. On the 14 day the test wounds were covered with a condensed layer of fibroblast and collagen which formed a scaffold for the epidermal growth. On 21 day the condensation of collagen and vascularization of the scar tissue was further enhanced. By 28 day, nearly 85% of the wound surface was covered with the normally growing epidermis.

Gross and Histomorphological Effects of Therapeutic Ultrasound in Humerus Fracture Healing in Dogs.

Singh, M., V.K. Sobti & K.S. Roy.

Punjab Agricultural University, Ludhiana

Mid shaft transverse fracture of humerus was created experimentally and repaired by intramedullary pinning in 8 dogs. In 4 dogs, ultrasound therapy at the rate of 0.5 w/cm² for 5 min was given on alternate days starting 3 days after the repair. A total of 10 treatments were given. Callus, harvested 40 days after the repair of the fracture, showed greater inflammatory reaction in control group, whereas, there was no inflammatory reaction in the treated animals. The fibroblastic and osteogenic activity was quite high in treated animals as compared to control. Callus of treated animals showed very strong reaction for neutral mucopolysaccharides. The muscle fibres of treated animals showed clear and distinct striations, while those of control animals showed hyaline degeneration. There was better localization of neutral mucopolysaccharides in the treated animals.

Effects of Shortwave Diathermy During Femoral Fracture Healing: An Osteomedullographic Study.

Va. anth, M.S., & O. Ramakrishna

Veterinary College, Tirupati

Transverse fracture of femur was induced in 48 dogs and repaired by fixation of intramedullary pin. These dogs were divided into two groups of 24 animals each. First group was treated with shortwave diathermy of 10 minutes duration, alternate days. Second group was kept as control without any further treatment. Six animals from each group were subjected to osteomedullography of the femur at intervals of 2,4,6,8 weeks. A tourniquet was applied at the inguinal region and a drill hole was made into the distal epiphysis of the femur. Ten ml of conray-420 was injected into the distal epiphysis using a tight fitting needle and syringe. Radiographs were taken immediately. Diathermy subjected limbs depicted early establishment of medullary cavity and venous drainage was seen from both

the segments indicating rapid healing of the fracture compared to the control animals.

Evaluation of Ceramic Implant in Bone Surgery in dogs

Das, D.K., & P.K. Samanta

*Bidhan Chandra Krishi Viswavidyalaya,
Mohanpur- 741 252.*

Block of calcium hydroxyapatite (50% porosity) ceramic was implanted into the medial aspect of proximal third of tibia in a series of healthy dogs. Clinical and radiological observations were discussed thoroughly. Findings suggested the feasibility of use of this particular ceramic as a suitable bone graft substitute in bone surgery.

Studies on the Use of Calcium Hydroxyapatite Ceramic Implant in Canine Bone Surgery

Das, D.K. & P.K. Samanta

*Bidhan Chandra Krishi Viswavidyalaya,
Mohanpur, 741 252*

The porous calcium hydroxyapatite ceramic material was used in a bone defect, induced in the proximal metaphysis of the tibia in the dogs. Clinical, haematological and biological assessments were made during six weeks of implantation. The findings indicated that calcium hydroxyapatite has a favourable result because of lack of adverse effects. Radiographic observations did not reveal resorption of the implant material in any case as the time progressed; the radiographic density of the implants appeared to increase gradually. The implants also appeared to be blended with the surrounding body tissue with good incorporation of the host bone. The nature of osseointegration indicated that the calcium hydroxyapatite may be utilised as a suitable bone graft substitute in bone surgery.

Study of Undecalcified Ground Sections for Evaluation of Allogenic Bone Grafts and Ceramic Implants in Goats - An Experimental Study

Maiti, S.K., & G.R. Singh

*Indian Veterinary Research Institute
Izatnagar 243122 (I.P)*

Thirty six trials were conducted to evaluate and compare frozen decalcified allografts (Gr A), autogenous red bone marrow impregnated frozen decalcified allografts (Gr B), autogenous citrated plasma impregnated frozen decalcified allografts (Gr C), ALCAP ceramic implants (Gr D), ALCAP ceramics impregnated with autogenous red bone marrow (Gr E), in 18 clinically healthy goats using both the tibia. All the types of grafts/implants were transplanted in a standard bone defects (1 x 3 cm) created in the proximal third of medial aspect of the tibia using electric bone saw under local anaesthesia.

Photographic enlarged undecalcified ground sections revealed that the bone defects were almost bridged by newly formed osseous tissue in groups A, B and C. The new bone formations were more in group B followed by C and A in decreasing order. In all the three groups newly formed bone appeared comparatively less dense and cancellous in nature and resorption of grafts and remodelling of new bone continued till day 90. The photographic enlarged ground sections showed that the bridging of the bone defect, either partial or incomplete, and the intensity of bone formation was mild to moderate in group D, E and F. Most of the ceramic implants were lost during preparation of sections and the bone surface lining the empty space was uniform and smooth. The ALCAP implants, which were not detached, did not show any sign of resorption in photographic enlarged sections.

Excision Arthroplasty of the Femoral Head in a Dog

Ganesh, T.N., W.P.A. David, N.N. Balasubramanian and M.S.D.M. Mohammed

Madras Veterinary College, Madras - 7

A four years old Doberman male dog with post traumatic secondary osteoarthritis of the left hip joint was considered for femoral head osteotomy since the animal was totally lame on the affected leg for more than 3 months. Excision arthroplasty of the femoral head was done by the standard technique followed by physiotherapy using Surg Faradic current for one week. By day 30, the animal showed marked improvement and due to the relief of pain there was satisfactory ambulation.

Pathological Evaluation of Aluminium-Calcium-Phosphorus Oxide (ALCAP) Ceramic in Goats- An Experimental Study

Maiti, S.K., Kalicharan & G.R. Singh

Indian Veterinary Research Institute

ALCAP Ceramic implants, ALCAP Ceramics impregnated with autogenous red bone marrow, and ALCAP Ceramics impregnated with autogenous citrated plasma were implanted in a tibial defect in goats.

The histological examination of ceramic implants were not possible in the present study as the unresorbed implants were detached during processing on account of their weak union with the host. However, new bone originating from both the endosteal and periosteal sides of host bone failed to penetrate into the ceramic implants. In most of the sections, the defect was bridged on endosteal side, however, on periosteal sides lipping of new bone was seen on both the sides which failed to unite. The newly formed bone, adjacent of the defect site, appeared well organised as evidenced by well developed Haversian system and Osteons and resorption cavities at places suggested that remodelling process had started and process of new bone formation become slower without any evidence of ingrowth of new bone/vessels into the implants.

Effect of Experimental Ligation of Femoral Artery in Distal Femoral Fracture Healing and Muscular Profile of Thigh in Dogs

Patra, S., A.K. Maji & P.K. Samanta

*Bidhan Chandra Krishi Viswavidyalaya,
Mohampur*

External callus formation in distal femoral fracture, immobilised by intramedullary pinning, was less at day 30 in animals where femoral arterial flow was completely blocked by ligation than that in the animals of normal femoral flow. At day 45, external, intermediate and bridging callus, as revealed by radiography, were more or less similar in both the groups. On 3, 7 and 15 day after ligation, congestion, dilatation of blood vessels and atrophy of sarcolemmal cells were observed. From 30 post-occlusion day onwards, the skeletal muscle fibres started to be replaced by fibro-collagenous tissue with thickened blood vessels upto 120 post-occlusion day with normal functional status.

New Technique of Bone Staining for Histological Study

Maiti, S.K., Kalicharan and G.R. Singh

Indian Veterinary Research Institute

The ground undecalcified sections were prepared. The bone pieces were grounded on a fine grade sand paper (grit no. 80) and finally on the bone under moderate pressure using slow circular motions. During grinding the bone, these sections were repeatedly examined under microscope for desired thickness which was judged on the basis of transparency of the section and presence of structural details of the bone.

The undecalcified ground sections were stained with Haematoxylin and Eosin. However, time required for staining varies from section to section depending on their thickness. Extra stain could be removed with acid-water (1%) solution, however, continuous monitoring is required during staining or removal of extra stain. In H & E stained undecalcified ground section, bone cells took pinkish colour and the intracellular bone matrix took red colour of eosin. The stained undecalcified ground

section was found useful for evaluating different stages of new bone formations, fate of grafts/implants and their resorption and replacement by newly formed osseous tissue. Hence, the procedures for histopathological examination of bone section which is more cumbersome and time consuming, can be replaced by this technique. However, further study is needed to standardize this technique.

Evaluation of Efficiency of Gentamycin and Kanamycin for the Control and Treatment of Bone Infection in Cattle

Singh, S & J. Singh

Haryana Agricultural University, Hisar.

Bovine model of experimental osteomyelitis (metacarpal bone) was produced by instillation of *Staphylococcus aureus* and saw dust into the medullary cavity to study the nature of the course of the disease. The same model was also used to study the pharmaco-kinetics of gentamycin (5mg/kg) and kanamycin (10 mg/kg) in serum and infected marrow. The results of disposition studies in infected marrow were compared with that in normal marrow.

The diffusion of gentamycin in infected marrow was more than that of kanamycin. Gentamycin was detectable in uninfected and infected marrow after 24 hours of its administration, whereas, kanamycin was neither detectable in uninfected marrow nor in infected marrow at this interval.

In the control untreated group, chronic osteomyelitis developed showing typical radiographic and histo-pathological changes which included osteolysis, and formation of abscess, sequestra and new bone. Local signs of inflammation, like, lameness, tenderness, heat, oedema and purulent drainage were observed in the initial stages. Leucocytosis and slight fever were also noticed.

The prophylactic treatment succeeded in preventing the establishment of infection, and the radiographic and histopathological changes did not appear in this group. Cultural examinations of marrow were also found negative for any micro-organism.

The therapeutic treatment resulted in localization of the lesions and resorption of sequestra, more so in case of gentamycin, but failed to arrest the progressive nature of the disease. The cultural examinations were positive even after 10 days of therapy.

Fractures in Dogs - an Incidence

Dhablania, D.C., P.S. Bansal & S.N. Sharma

Punjab Agricultural University, Ludhiana.

A study was carried out on the cases of fractures in dogs visiting the small Animal clinics of the Punjab Agricultural University, Ludhiana. Different aspects, viz., bone involved, type of fracture, sex, age etc was recorded. Additionally, the different causes of fractures, based on the history given by the owners, were also evaluated. The different treatments adopted, viz., pinning, plastering or plating, etc. with rehabilitation was evaluated. Complications, as recorded in different cases, are being discussed.

Surgical Management of a Compound Mandibular Fracture in a Mare,

Gahlot, T.K., G.R. Choudhary & D.S. Chouhan

Rajasthan Agricultural University, Bikaner

A mare of non-descript breed, aged 6 years, was presented with a compound mandibular fracture due to tethering and subsequent falling on the ground. Clinical and radiological examinations revealed it to be a saggito-oblique fracture of horizontal rami across the mandibular symphysis with loss of incisors. The mare was premedicated with diazepam, 100 mg, i.v. and anaesthetized with thiopentone sodium 1 g, i.v. An interdental wiring encompassing lateral incisors was attempted for immobilization, using 1 mm thick copper wire. Parenteral administration of antibiotics continued for 7 days and clinical union was achieved in 2 months.

Repair of Long Bone Fractures By External Fixation using PVC Pipe In Bovine and Caprine- A Clinical Study of 13 Cases

Sarkate, L.B., Aher, V.D. & A.P. Bhokre,

Marathwada Agricultural University, Parbhani.

Multiple metatarsal fracture in a bull and a buffalo heifer and multiple first phalangeal fracture in a buffalo were successfully treated by external application of two halves of PVC pipe. A PVC pipe of 12-18 inch in length

and 3-4 inch in diameter was cut into two equal halves and appropriate shape of lower limb was given by heating the pipe in boiling water. The two halves of PVC pipe were applied on anterior and posterior side of the fractured limb, after close reduction of the fracture. A tight bandage was applied all around the PVC pipe. Similarly, five cases each of metacarpal and metatarsal fractures in goats were treated by the same technique by using 1 inch diameter PVC pipe. Radiographic examination of all the cases revealed optimum callus formation and callus organization on 30 and 60 post-treatment day. Partial weight bearing was observed from 30th day, whereas, complete weight bearing was observed from 80th post-treatment day. Full weight bearing, however, was seen much earlier in goats.

Intramedullary Horn Peg Fixation for the Repair of Metatarsal Fracture in Buffalo Calves and Goat

Sarkate, L.B., V.D. Aher & A.P. Bhokre

Marathwada Agricultural University, Parbhani

A total of 12 apparently healthy buffalo calves of 6 months to one year age, divided into two equal groups, were used for the study. Transverse or short oblique fracture of mid-shaft metatarsal, was created in each animal under general anaesthesia. In group I, horn peg was placed in the marrow cavity and was fixed with screw, one each on proximal and distal side of the fracture and two halves of PVC pipe were applied externally as an additional support. In group II only PVC pipe and bandage was applied externally. Partial weight bearing with the fractured limb was observed from 21st post-operative day in group-I. Complete weight bearing during standing and progression was observed from 45th post-operative day. Radiographic examination revealed optimum size callus formation at 30 day but complete obliteration of fracture line was observed on 60th post-operative day. Similarly, a transverse metatarsal fracture in goat was repaired successfully by intramedullary horn peg fixation. Intramedullary horn peg fixation did not show any reaction either during fracture healing or after its completion.

Effects of Shortwave Diathermy During Femoral Fracture Healing: An angiographic study

Vasanth, M.S. & O. Ramkrishna

College of Veterinary Sciences, Tirupati

Femoral fracture was induced experimentally in 48 dogs and repaired by intramedullary pin fixation. These animals were divided into two groups of 24 animals each. First group was treated with shortwave diathermy of 110 minute duration on alternate days. Second group was left without any further treatment as control. Six animals from each group were subjected to angiography of the femur to study the vascular pattern during fracture healing at intervals of 2,4,6, & 8 weeks.

Angiograms depicted early intense hypervascularity and reconstitution of arterial circulation across the fracture gap in the shortwave diathermy treated animals when compared to control animals.

Radiographic Contrast Studies of the Urinary Tract in Four Dogs

Ganesh, T.N., N.N. Balasubramaniam & M.S.D.M. Mohammed

Madras Veterinary College, Madras-7.

Four clinical cases reported to the college clinics with urinary tract problems were considered for this study. The dogs were suffering from nephritis and unilateral renal failure, cystitis and urethral calculi, pyelonephritis with ureteral dilatation and cystic calculi. Excretory urography was performed using Meglumine iothalamate or sodium iothalamate. Urography was helpful in the diagnosis and assessment of the functional status of the kidneys in the above cases.

Observations on Clinical and Angiographic Changes in Post-ligation Periods of Femoral Artery in Dogs.

Patra, S., A.K. Maji & P.K. Samanta

B.C.K.V. Mohanpur, Nadia, West Bengal

The changes of clinical parameters in terms of appetite, rectal temperature, heart rate, respiratory rate, muscle activity, leg circumference and haematology in terms of count of R.B.C., W.B.C., Hb%, P.C.V. and D.L.C. were non-significant throughout the experimental period upto 120 days. The 0 day, 3 day and 7 day angiography were almost similar showing no branch distal to ligation except a long finer vessel at anterior thigh region on 7 day. From 15 day onwards the 'pre-existing collaterals' and 'newly visible collaterals' started to appear and gradually became more tortuous, more anastomotic crossed and re-crossed and varied in diameter establishing a 'bypass' route.

Contrast Radiography to Diagnose Persistent Oral Palate in Calf.

Ray, A.K., A.K. Mitra & I. Nath

Veterinary Faculty, O.U.A.T., Bhubaneswar

An emaciated 3 months old crossbred female calf was presented with the complaint that milk was flowing out of its mouth during suckling. It was not able to swallow, too. Physical examination of mouth cavity revealed a flap in front of the pharynx. The calf was exposed to contrast radiography and operation. The case had an uneventful recovery.

Use of Double Contrast Gastrography in Canine: An experimental study

Thilagar S., M.S.D.M. Mohammed, N.N. Balasubramaniam & W.P.A. David

Madras Veterinary College, Madras.

Double contrast gastrography facilitate more accurate detection of gastric lesions because it allows direct evaluation of mucosal pattern and contour. Six non-descript dogs weighing about 8-12 kgs were used. All animals were fasted for 24 hours and sedated with Trifluopromazine hydrochloride (0.5-1 mg/kg, i/v). Hyoscine butyl bromide was given i/v at the dose rate of 1 mg/kg to reduce gastric motility preventing eructation of administered gas. Barium sulphate (30%) and air were administered through the stomach tube at the dose rate of 3ml/kg and 20ml/kg, respectively. The dog was rotated to 360 around long axis after removing the stomach tube. Radiographs were made with the dog on right lateral, left lateral dorsoventral and ventrodorsal. The gastro-esophageal junction, longitudinal fold of greater curvature of pyloric antrum and greater and lesser curvature of stomach were evaluated.

Oral Cholecystography in Sheep: An experimental study

Tayal, R., M. Singh, S.K. Sharma, K. Singh & J.M. Nigam

H.P.K.V.V., Palampur

Oral cholecystography was done in six adult healthy sheep using iopanoic acid (Telepaque tablets) at three different dose rates (150 mg, 200 mg, and 250 mg, per kg). Cholecystograms of diagnostic quality were obtained between 24 and 36 hours after oral administration of the contrast medium used at the dose rate of 200 mg per kg and with the animals in the recumbent right lateral position. Radiographic anatomy of normal ovine gall bladder as visualized on cholecystogram is described.

Repair of Long Bone Fractures by Horn Plating in Domestic Animals- A Report of four cases

Sarkate, L.B., V.D. Aher & A.P. Bhokre

Marathwada Agricultural University, Parbhani.

A multiple radio-ulna fracture in a bullock, multiple metatarsal fracture in a bull-calf, bilateral metacarpal fracture in a goat and humeral fracture in a pup were successfully repaired by internal fixation, using horn plates, under xylazine-ketamine anaesthesia. Partial weight bearing by fractured limb was observed from 14 post operative day, while complete weight bearing during standing and progression was observed from 45 to 60th post-operative day in all the cases. Post-operative osteomyelitis was observed in left metacarpal fracture of a goat due to a wound caused by longer size screw. However, the removal of screw and plate on 60th post-operative day, resulted in suppression of bone infection. Radiographic examination of bone did not show any untoward reaction either during fracture healing or after the completion of healing in any animal.

Amyl Alcohol As Anaesthesia In the Treatment of Vaginal Prolapse In A Goat

Hussain, S.S., N. Ahmed & D.M. Makhdoomi

Faculty of Veterinary Sciences, Srinagar.

A goat was presented with prolapse of vagina. The prolapse was reduced after cleaning antiseptically under low epidural anaesthesia. However, tenesmus continued and all the conventional methods failed to control it. An injection of amyl alcohol was administered at the dose rate of 0.02 mg/kg at first intercoccygeal space. The tenesmus was abolished and it did not recur even after 15 days when retention sutures were removed. The tail became flaccid and after 45 days the function of the tail was restored. The use of amyl alcohol is the last treatment in chronic cases of vaginal/rectal tenesmus.

Evaluation of Thiopentone in Combination With Halothane for Anaesthesia of Dromedary

Singh, R., P.K. Peshin, J. Singh, A.P. Singh & K. Singh

Haryana Agricultural University, Hisar.

Halothane, after induction with thiopentone sodium, was evaluated for clinical signs, haematology and blood bio-chemical constituents (Group I, n = 6) haemodynamics, acid base status and blood gas studies (Group II, n = 6) in dromedary. Halothane moderated the thiopentone-induced tachycardia, moderate hypotension, slightly increased CVP, respiratory acidosis, elevated venous oxygen tension and primary T-wave changes in electrocardiogram were recorded during halothane anaesthesia. Hypoxaemia occurred 15 minutes after discontinuation of halothane and blood pressure also remained lower than normal at this stage. Most of the reflexes were normal within 15 to 25 minutes of discontinuation of halothane and complete recovery occurred in 39.5 ± 9.83 minutes.

The alkaline aminotransferase values increased during recovery and remained so upto 72 hours. Significant reduction in plasma calcium was recorded at 24 and 48 hours after anaesthesia. Halothane can be safely used

in camels, but administration of oxygen should be continued in the immediate post-anaesthetic period to avoid possible hypoxia.

A Case of Interdental Overgrowth on Cranio-lateral Aspect of Mandible in A Buffalo

Shivaprakash, B.V., Dadke, R.S. & V. Ramkrishna

Veterinary College, Bidar.

A four year old buffalo was presented to the veterinary hospital with a history of inability to close the mouth properly and going down in condition since one month. On examination, a two inch long moderately hard whitish structure was present lateral to the right corner incisor, originating from the alveoli. Tentative diagnosis was made as odontoma and surgical resection was undertaken. The animal was positioned in lateral recumbency and the growth was resected under local analgesia. The detailed surgical technique and pathomorphological features of the growth is presented.

Surgical Management of Parotid Tumour in A Bullock

Hoque, H., G.R. Singh, N. Kumar & A.M. Pawde

Indian Veterinary Research Institute, Izatnagar.

A bullock aged 5 years was presented with a large sized growth at the right parotid region with involvement of right parotid gland. The regional lymph glands and left parotid gland were normal.

The entire tumour mass alongwith the parotid gland was excised under intravenous chloral hydrate 6% and local infiltration with 2% lignocaine hydrochloride. The tumour mass weighed 3 kg. On microscopic examination, the growth was identified as reticular cell sarcoma. The animal showed uneventful recovery and there was no recurrence for the last one year.

Biochemical Investigations of Recurrent Tympany in Bovine

Ray, R.M., A.K. Ray, A.K. Mitra & I. Nath

Orissa University of Agri. & Tech. Bhubaneswar- 3.

Six calves were subjected to induction of tympany by introducing polythene bags into rumen following rumentomy. Three calves had 1600 g and other three had 800 g of the material lodged inside the rumen.

The rumen liquor and biochemical estimations were conducted before and after induction of foreign bodies at specified time interval.

The results were compared with the clinical cases.

Intestinal Obstruction due to Fecoliths in A Cow-Calf

Jadhav, P.T., S.M. Usturge, & N.M. Markandeya

Veterinary College, Udgir 413 517.

A case of 65 day old female cow-calf having suspended defaecation since six days was surgically treated for removal of the intestinal obstruction by enterotomy. Unusually large sized fecoliths were recovered from the colon, obstructing the passage. The symptoms exhibited by the animal, the surgical procedure and post-operative care are described.

An Unusual Intestinal Abscess And Its Surgical Management in A Cat

Suresh, R., R.S. Kumar, N.N. Balasubramaniam, A. David, K.B.P. Ragavendra, M.S. Prohit & M.S.D.M. Mohammed

Madras Veterinary College, Madras.

A nondescript male cat, two years old, had a history of off feed with distended abdomen since 3 days. Palpation revealed a mass which was confirmed by survey radiography as a radio-dense mass with presence of an air rifle pellet. Exploratory laparotomy showed the presence of a fluctuating mass on the terminal portion of ileum which was diagnosed as an abscess on test puncture.

The affected portion of the intestine was resected and end-to-end anastomosis was performed in a routine manner. The recovery was uneventful. An air rifle pellet was located in the abscess cavity on opening.

Experimental Intestinal Strangulation Obstruction In Goats Bacteriological Study

Parvathamma, P.S., A.A. Kumar & O.P. Gupta

Indian Veterinary Research Institute, Izatnagar.

The study was conducted on 22 clinically healthy adult goats of either sex, randomly divided into group I (Ischemic strangulation obstruction) and group II (Haemorrhagic strangulation obstruction) consisting 11 animals each. Further, each group (I & II) was divided into two subgroups. Animals of group I were divided to subgroups Ia and Ib consisting 4 and 7 animals, respectively. The same pattern of grouping was followed for group II. The animals of subgroups Ia & IIa served as controls for their respective group.

The fecal samples were collected before creation of obstruction from all animals of both the groups. Intestinal contents of obstructed part, peritoneal fluid and mesenteric lymphnodes were collected immediately after death in control groups (Ia & IIa) and in subgroups Ib and IIb. The samples were collected after 12 h of strangulated intestinal obstruction. All samples were grown on appropriate media, which revealed *E. coli*, *Alkaligenes faecalis*, *Enterobacter aerogenes*, *Citrobacter freundii*, *Pseudomonas aeruginosa*, *Enterobacter liquefaciens*, *Proteus vulgaris* and *Shigella sp.* Out of these, *E. coli* and *Alkaligenes faecalis* were the commonest organisms isolated from all the samples.

The toxicity test of different samples viz, intestinal content and peritoneal fluid by i/v challenge proved fatal to mice. Intraperitoneal inoculation of isolated pure cultures from samples of faeces, intestinal contents, peritoneal fluid and mesenteric lymph. node also proved fatal to mice.

Experimental Intestinal Strangulation Obstruction In Goats : A Clinico-Haematological Study

Parvathamma, P.S., O.P. Gupta & G.R. Singh
Indian Veterinary Research Institute, Izatnagar.

Eight clinically healthy adult goats of either sex were utilised for this study. The animals were randomly divided into two groups consisting of 4 animals each. Closed loop ischemic strangulation obstruction was created in group I and haemorrhagic strangulation obstruction in group II.

Clinically, all the animals of both the groups showed signs of excitement and pain immediately after ligation. Thereafter, animals of both groups became dull and depressed. Water and feed intake reduced markedly. Heart rate and respiration rate showed a progressive increase at different intervals, in both the groups. Rectal temperature remained in normal limits in group I animals but it was subnormal after 36 h in group II.

P.C.V. showed non-significant increase in both the groups at different intervals but the increase was comparatively more in animals of group I. There was no marked change in the values of Hb in both the groups.

The animals of group I survived 18-32 h with a mean of 24.25 ± 2.36 , whereas, in the animals of group II the survival time varied from 27-50 h with a mean of 46.66 ± 2.49 . One animal exceptionally survived upto 170 h.

Colonic Intussusception In A Cow Bull

Usturge, S.M., P.T. Jadhav & R.L. Dhoble

Veterinary College, Udgir - 413 517.

A case of intussusception of colon with an unusual dilatation of caecum in a 5 year old cow-bull was reported at the clinics of Veterinary College, Udgir. The case was successfully treated with evacuation of abnormally distended caecum and resection of the part followed by end-to-end anastomosis. An uneventful recovery was observed following the surgery. The symptoms diagnosis and the surgical procedure with post-operative care are described.

Enterectomy and Entero-anastomosis Following Intussusception In A Heifer

Nigam, J.M., M. Singh, A.C. Varshney, S.K. Sharma, B. Parsad & R.K. Mandial

H.P. Krishi Vishivavidyalaya, Palampur.

A three year old heifer was referred to college clinics with a history of complete cessation of defecation for the last ten days. Symptomatic therapy with purgatives had failed. Clinical examination revealed animal to be anorectic, dehydrated, restless and kicking at the belly. Ruminal atony and tympany were present. Haemoconcentration was evident from elevated haemoglobin and packed cell volume but differential leucocyte count was normal. Per-rectal examination and exploratory laparotomy through right paralumbar fossa confirmed the diagnosis of intussusception. The invaginated nonviable part of ileum near the caeco-colon junction was resected to relieve the condition. Subsequently, end-to-end entero-anastomosis was performed to maintain the patency of the bowel. The animal made uneventful recovery within ten days after operation.

Surgical Management of a Huge Abdominal Hernia in A She-Buffalo.

Kadam, S.G.¹, G.N. Shelke¹, S.M. Usturge² & P.T. Jadhav²

¹Z.P. Latur & ²Veterinary College, Udgir

A huge chronic abdominal hernia in a she-buffalo was successfully treated without any post-operative recurrence. The herniorrhaphy was performed by restraining the animal in semilateral recumbency under deep sedation with xylazine-ketamine combination and local infiltration anaesthesia. The prolapsed mass of the viscera was replaced back into the abdominal cavity after severing the adhesions. Abdominal wall was repaired layerwise using braided silk No. 4. An uneventful recovery was observed.

Coexisting Perineal and Inguinal Hernia in A Dog

Richard, M.G., S. Ayyappan, P.H. Tank, W.P.A.
David & N.N. Balasubraminiam

Madras Veterinary College, Madras 600 007.

An eight year old uncastrated male Alsatian dog with a history of progressive swelling in the right perineal and right inguinal region, tenesmus and dysuria was presented. The case was examined and diagnosed to be having co-existing reducible vesicocoele and was confirmed by radiography. Herniorrhaphies of the respective sites were performed as per standard procedure and herniated mass was reduced. Cystopexy was carried out to prevent recurrence of vesicocoele. Post-operative recovery was uneventful. The case holds importance of co-existence of two different herniated structures at different sites, their surgical correction and management.

Perineal Cystocoele in A Crossbred Cow

Radhakrishanan, C., R. S. Kumar, K.A. Jan,
N.N. Balasubraminiam, R.S. George & M.S.D.M.
Mohammed

Madras Veterinary College, Madras- 7.

A cross bred cow aged about five years was brought to the Madras Veterinary College Hospital with a history of fluctuating swelling on the left perineal region for a period of two years. Bowel movement and urination were normal except for the reduction in the size of the swelling immediately after urination. The mass was reducible and tentatively diagnosed as reducible perineal hernia with bladder involvement. A linear curved incision was made on the left perineal region extending from the base of the tail downwards and lateral to the vulval lips. Incision of the skin and sub-cutaneous tissue exposed the bladder. As there was no adhesion, the bladder could be easily returned to the pelvic cavity. There was a tear in the left pelvic diaphragm. After reducing the muscular tear, medial and lateral coccygeal muscles were opposed. The perineal fascia was sutured with the available muscle tissue. The skin was sutured after trimming the excess tissue. The animal was fed half

of the usual feed for 10 days. Antibiotics were administered post-operatively. The recovery was uneventful and the skin sutures were removed on the 10th day.

Surgical Management of Rupture of Urinary Bladder in a Bullock

Kadam, A.N., G.N. Dapke, S.D. Nagpurne, &
S.G. Dhanure

Department of Animal Husbandry, Maharashtra State.

A case of a Deoni bullock, aged 8 years, suffering from rupture of urinary bladder with urethral calculi was surgically treated. The treatment procedure involved urethrotomy for removal of urethral calculi, evacuation of urinous fluid from the peritoneal cavity, cystorrhaphy and intravenous fluid infusion. The animal recovered without any complication following proper post-operative treatment. The animal was put back to field work after about a month of the surgery. The symptoms exhibited by the animal, surgical procedure and post-operative care has been described.

Surgical Repair of Bladder Rupture in A Bullock by Ischio-rectal Approach

Vasantha, M.S., G.V. Lakshmi pathi & O.
Ramakrishna

College of Veterinary Sciences, Tirupati.

A four year old bullock was presented to the hospital with history of anuria. Upon rectal examination, rupture of urinary bladder was diagnosed. Epidural anesthesia was induced using 10 ml of lignocaine hydrochloride. Upon exteriorisation of penis, a irregular shaped calculi was found partly projecting from the urethral orifice of the glans penis. Granulation tissue anchored the calculi at its site and with slight manipulation, calculi was pulled out. Passing of catheter revealed absence of any more calculi in the urethra.

Bladder was exteriorised easily by a 4 inch skin incision at ischio-rectal fossa. A

tear in the vortex of bladder was sutured by cushioning suture using 1/0 chromic catgut. A polythene tube was fixed in the urethra to drain the urine from bladder. The bullock recovered without any complications. Catheter and skin sutures were removed on the 8th day. The bullock was discharged on 10 day.

Incidence of Ectopic Testis in Kangeyam Bulls

Ramasamy, V., B. R. Kumar & R. Seshachalam

Livestock Research and Development Centre, Erode (T.N).

A general survey conducted in Periyar district of Tamil Nadu from 1989 to 1991 revealed 2 to 3% incidence of ectopic testis in Kangeyam bulls brought for castration. Out of these, 80% were unilateral and 20% were bilateral cases of ectopic testis.

The affected animals, though they were utilized for draught purpose, showed characters of bulls, like, ferocious behaviour, erection of penis, mounting on other animals, maintenance of steel grey colour, etc. Routine closed method of castration was not possible in these animals, since, the testicle was not found in the scrotum but, lodged near the external inguinal ring, subcutaneously. A convenient method was designed by securing the hind limb of the affected side in the flexed position, to gain access to the hidden testis. Open orchidectomy was advocated for neutering the animals.

Unusually Large Bilateral Sertoli Cell Tumor in a Dog

Jayaprakash R., S. Ayyappan, P.H. Tank, W.P.A. David & N.N. Balasubramaniam

Madras Veterinary College, Madras.

A 10 year old uncastrated male Alsatian dog was presented with a history of bilateral hard fluctuating mass in the ventral abdomen. Clinical examination revealed cryptorchidism and signs of feminization. Both the masses were excised as per standard technique which revealed that the masses were testicular

tumours. Post-operative therapy was aimed to control feminization syndrome and promote wound healing. The case recovered without any complications.

An Unusual Case of Retained Pups and Pyometra in A Bitch

Ayyappan, S., R. Suresh Kumar, S. Thilagar, W.P. A. David, N.N. Balasubraminiam & M.S.D.M. Mohammed

Madras Veterinary College, Madras.

An 8 year old female Spitz was referred with history of pyrexia, listlessness, polydipsia, emesis, blood tinged vaginal discharge and attraction to male dogs. Clinical examination and haematology revealed a neutrophilic leucocytosis with left shift. Radiographic evaluation revealed the presence of ossified retained pups. Pyometra was diagnosed. Ovariohysterectomy was carried out after stabilising the animal's condition with adequate fluid and antibiotic therapy. The resected uterus was found to contain three dead putrified pups. Pyometra was also present.

Histopathological studies of the resected uterus confirmed cystic endometrial hyperplasia. The animal recovered without any post-operative complications.

Management of An Unusually Large Transmissible Venereal Tumour of Penis in A Dog

Ganesh, T.N., P.H. Tank, S. Ayyappan, M. Purohit, A. David & N.N. Balasubramaniam

Madras Veterinary College, Madras- 600 007.

A six year old male non-descript dog was presented with a history of rapidly developing growth inside the preputial sac resulting in haematuria, stranguria and was diagnosed as transmissible venereal tumour of penis. Surgical management of the case included enmasse excision of penis (penectomy) and urethrotomy at the level of the ischial arch. Post-operative therapy was aimed at preventing recurrence of growth by chemotherapy, promoting wound healing and reducing development of adhesions at the operative site. The case recovered uneventfully.

Vulval Tumor in An Aged German Shepherd Bitch

Bose, P.K., B.B. Das & A.K. Maji

South Calcutta Veterinary Clinic, Calcutta.

A 13 years old German Shepherd bitch was operated in South Calcutta Veterinary Clinic to relieve its difficulty in urination due to presence of pedunculated round mass, congested in appearance and hanging from the vulval region. The ovoid tumor (9 cm x 5 cm) attached with a cord like peduncle was removed under tranquilization and local infiltration after putting a ligature in the cranial most part of the attached pedicle. The bitch got uneventful recovery after operation. The growth was tested histopathologically and was found to be cavernous angioma with extensive area of haemorrhage without evidence of malignancy.

Studies on Surgical Recovery of Embryos in Osmanabadi and Crossbred Goats

Doijode, S.V., S.A. Bakshi, D.R. Pargaonkar & N.M. Markandeya

Marathwada Agricultural University, Parbhani.

Oestrus in 20 recipients and 12 donors was synchronized by Lutocycline 0.5 ml (12.5 mg Progesterone) i/m per day for 17, 16, 15 and 14 days in groups I, II, III and IV, respectively. In donors, superovulation was achieved by injecting Folligon (PMSG) 1000 IU s/c and Chorulon (HCG) 1500 I.U. i/v. Out of 20 recipients, 17 (85%) exhibited oestrus. The overall time required for exhibition of oestrus from last progesterone treatment and the overall duration of oestrus was 80.52 ± 3.04 and 24.94 ± 0.78 hours, respectively. Out of 12 donors, 8 (66.67 %) exhibited oestrus after treatment with Folligon and the overall duration of oestrus was 76.62 ± 20.98 hours and 22.5 ± 0.73 hours, respectively. The stage of donor at which the surgical embryo recovery was done after exhibition of oestrus was 101.5 ± 3.08 hours. The overall number of intact follicles was

6.62 ± 1.34 and the overall number of corpora-lutea was 3.12 ± 0.75 . The overall percentage of ovulation to total ovarian activity was 34.29. The overall number of ovulations, number of eggs recovered and number of eggs fertilized was 3.12, 0.875 and 0.428, respectively. The overall percentage of eggs fertilized was 24.17 and 45.84, respectively. In both the donors from group IV embryo recovery was not possible as there was bilateral salpingitis.

Out of 8 donors operated, the embryo recovery was possible in 6 donors. From these 6 donors two 16-cell morulae, one, two-cell embryo and 4 unfertilized eggs were recovered. In both the donors from group IV embryo recovery was not possible as there was bilateral salpingitis.

Recurring Venereal Granuloma and Splenic Tumor in A Dog

Badgujar, C.L. & S.Z. Sharma

Bombay Veterinary College, Bombay.

A female Pomerian dog spayed at five years of age was presented to the clinic with venereal granuloma, which was surgically removed. It recurred and colpectomy was performed. After five months the granuloma recurred and a tumour of spleen was also noticed. The granuloma growth was removed. Splenectomy was performed after seven days interval. However, the granuloma continued to grow rendering it unoperable within three months. Injection Cytocristin, 0.25 mg was given i/v and repeated after a week. The granuloma showed no recurrence upto eight months.

Surgical Anatomy of The Caput and Collum of Os Femoris of Buffalo

Bhardwaj, R.L. & D.N. Sharma

College of Veterinary & Animal Sciences, H.P.K.V. Palampur- 176 062, (H.P.)

Biometrical studies was conducted on the caput and collum of the os femoris of 6 adult buffalo bilaterally. The caput was round in shape (spherical index 63.96) with an extensive articular surface (circumference 19.50

cm) clearly demarcated from the strongly built neck set at a wider angle (48.83 ± 0.77) from the shaft when compared to horse. The length (4.83 ± 0.24 cm), width (5.22 ± 0.14 cm) and thickness (2.61 ± 0.29 cm) were directly related to the circumference of the articular surface of the caput. However, the angle of the collum was an independent variable, not affected by other parameters of caput or collum. The latter parameter if estimated could be safely used to predict the manoeverability of the hip joint in case of setting of the hip dislocation which commonly occurs in high-yielding dams.

Management of Bilateral Fracture of Metacarpals in A Buffalo

Simran, P.S. & K.K. Gupta

A buffalo aged 9 years got both the metacarpals fractured. Successful management with external splintage and chain-pulley was performed. The animal learnt getting up on its own later on and a normal healing occurred. The exact procedure and medication have been described.

Haemopoietic Changes Following Haemodilution and Auto-transfusion During Elective Surgery in Dogs

Singh, S., K.K. Mirakhur & N.K. Sood

Punjab Agricultural University, Ludhiana.

Twenty clinically healthy female dogs, aged 2-3 years divided into 4 groups of 5 animals each formed the subject of the study. The blood equivalent to 0.8% of the body weight was collected in sterile ACD bottles. The blood was diluted 2.5 times with Ringer's lactate. The diluted blood was retransfused after surgery. Myeloid:erythroid ratio, calculated on 10th day, showed non-significant variation when compared with the basal values for all the animals. However, ratios were narrower in most cases on the last day of the observation. An appreciable increase was observed in the mean values of rubriblasts on last day of observation in groups I and III. In general, a mild macrocytic hypochromic anaemia was observed in the blood smears except for the control group.

Repair of Flexor Tendon Contracture Following Sweeny in a Thoroughbred Filly

Simran, P.S.

Punjab Agricultural University, Ludhiana.

An year old filly developed sweeny after an injury in the paddock. Flexor tendons contracted in that limb and the other limb deformed due to continuous weight bearing. Tenotomies of flexor carpi radialis, flexor carpi ulnaris and superficial digital flexor tendons were performed successively to allow weight bearing. Importance of limb straightening at an early stage of the disease is discussed.

A Comparative Histopathological Healing of Skin, Muscle and Intestine Following Scalpel and Electrosurgery in Rabbits

Bakhtyari, J., O.P. Paliwal & G. R. Singh

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

Twelve adult rabbits weighing 1-1.5 kg were divided equally into two groups A & B. In animals of group A, laparotomy and enterectomy was performed using scalpel blade, whereas, in animals of group B electrosurgery was used for the purpose. The cut ends of intestine were anastomosed with single layer inversion sutures using black braided silk 3/0. The laparotomy wound was sutured in layers using simple continuous sutures with chromic catgut 2-0 for muscle and interrupted mattress sutures with silk 2-0 for skin. Two animals from each group were sacrificed at day 7, 14 and 21 post-operatively for histopathological evaluation of healing.

At day 7, in group A, areas of necrosis and marked infiltration of inflammatory cells were noticed in the skin. The muscles revealed myositis, necrosis and thrombosis of blood vessels. In the intestine, there was oedema, infiltration of inflammatory cells, connective tissue around the sutured area, except in one case in which there was marked oedema. The result in the group B revealed better healing response than group A. In group A,

more adhesions were noticed than group B.

At day 14, in group A, moderate to severe necrosis around sutured site, perivascular infiltration, hyalinization of muscle fibres and fibrocellular reaction were noticed in the skin, muscle and intestine. The severity of fibrocellular reaction was more in comparison to group A of day 7. In group B, skin revealed focal necrosis, hyperplasia of epidermis and necrosis around the sutured area, hyalinization of muscle fibres, granulation tissue formation and in the intestine infiltration of polymorphs and granulation tissue formation were noticed. In comparison to group A animals, healing was better in group B.

At day 21, good healing was observed in both the groups A and B, however, in group B healing status appeared better except in one case where there was pus formation.

Microbiological Study of Cutaneous Wounds in Camels

Purohit, N.R., D.S. Chouhan, M. Rawat S.N., Rajpurohit & K.N. Sharma

Rajasthan Agricultural University, Bikaner.

Microbiology of wound was put under several investigations for isolation and identification of the prevalent micro-organisms in camel. The antibiotic sensitivity pattern was also studied.

Samples from 49 cutaneous wound/abscesses of camels were examined. In all, 86 pure bacterial isolates were obtained from these samples. The isolates were further examined according to their morphology, cultural and biochemical activities and on the basis of these tests 9 genera were characterized. These genera were further identified into 21 different species on the basis of secondary biochemical tests. Each isolate was subjected to antibiotic sensitivity test.

Observations of the Wound Healing Properties of Himax and Teeburb.

Sharma, D.N. & R.L. Bhardwaj

*Himachal Pradesh Krishi VishvaVidyalaya
Palampur (HP) 176 062.*

Incised and lacerated, uninfected and infected and gaping wounds were created in 15 calves (bilateral 6 wounds on each side). Histopathological and histochemical status of the wounds were recorded following Himax, Teeburb and Himax-Teeburb combination. All wounds healed by first intention. Teeburb had a further potentiation effect. Himax caused excoriation of the epidermis. It aided healing by quick epidermal growth, anti-inflammatory, antipruritic and wound-clearing properties. It also attracted chromatophores and thus helped in early resumption of colour of the skin. Therefore, various skin affections could be profitably managed with combined Himax-Teeburb therapy.

Aspiration, Drainage and Medication Techniques for the Treatment of Stubborn Carpal Hygroma in Equines

Al-Khatib, H.B.H., S.K. Srivastava, M. Shyam & S.S. Misra

*C.S. Azad University of Agri. & Tech.,
Mathura-Campus, Mathura- 281 001 (U.P.)*

Carpal hygroma, an inflammatory condition of the acquired bursa in front of carpus usually results from repeated trauma of varied nature in equines.

A case with excessive hygroma, larger than a cricket ball, was reported. Exploratory puncture led to release of clear serous fluid. Conventional treatment for drainage and medication (by lugol's iodine etc.) proved futile due to repeated filling of the cavity. A continuous drainage cum medication technique was devised using a self contrived drainage assembly consisting of a 15 cm long polyethylene tube (Romson's, Agra) with 6 mm outer diameter. Fenestrations were suitably made equidistantly in the region to be indwelt within the hygroma.

The exterior end of the tube was not fenestrated and was provided with a latex tubing of suitable size to help desired opening

and closure of the assembly.

The hygroma was opened aseptically just to permit the indwelling of the assembly and after adequate drainage the tube assembly was inserted with the fenestrated end to lie within the cavity of hygroma. It was retained by cutaneous sutures.

Medication with hyaluronidase (10 I.U.), gentamycin (40 mg) was done after thorough irrigation with saline solution. A compression cum protection bandage was applied. Medication was done during the seven consecutive days.

An uneventful recovery was evident after removal of the assembly on 8th post-operative day.

Fibroma of Sub-Mandibular Salivary Gland in A Black Bear

Pandey, S.K., V.P. Chandrapuria & M.R. Malik

*College of Veterinary Science & A.H.
Jabalpur (M.P).*

An adult male black bear weighing approximately 60 kg had a history of slow growing growth in the mandibular space. The growth was firm and circumscribed on palpation. The animal had difficulty in deglutition and there was constant discharge of saliva from the mouth.

The growth was removed under ketamine anaesthesia using 10 mg/kg intramuscularly. The growth weighed 450 g, and was closely adhered to underlying dermis and free from pus. The wound was kept unsutured as there was thick watery discharge. The wound was painted daily with Tr. iodine for 10 days which helped to stop the discharge of saliva from the wound. Subsequent dressing was done with nitrofurazone and wound healed without any complication within 4 weeks. Oxytertracycline-500 mg was injected intramuscularly daily for 10 days.

Histopathologically, the growth was fibroma originating from the fibrous capsule of submandibular salivary gland.

Occurrence of Osteoma in A Tigress

Abdul Gani

Veterinary Polyclinic, Buldhana (M.S.).

A rare case of osteoma in a tigress aged 17 years belonging to M.G. National park of Municipal Corporation, Solapur, is recorded. The animal was unable to bear weight on right foreleg which was always kept lifted. The swelling on the right shoulder joint was gradual.

The Tigress was examined in a squeeze cage under Sparin sedation. The swelling was found to be a hard, compact bony mass of the size of a small football.

It did not respond to any medicinal treatment and the animal died after six months. Histopathologically the tumor was proved to be osteoma.

Malignant Melanoma of Canine Soft Palate

Sen, T. B.

*Bidhan Chandra Krishi Viswa Vidyalaya,
Calcutta- 741 246.*

A thirteen year old Labrador dog was presented to the surgical unit of A.L.O.A.S Clinics, Calcutta with an ulcerated growth on palate. The case was diagnosed as a malignant melanoma after histopathological examination. Surgical resection was done under tranquilization and local analgesia. Carcino-chemotherapy with antibiotics improved the condition initially but the animal died on 45th day. The tumour was highly invasive and metastases were found in both lungs and liver.

A Rare Case of Embryonal Rhabdomyosarcoma (alveolar type) in A Bitch

Das, B.B., A.K. Maji, J. Sengupta & P.K. Bose

Calcutta Veterinary Clinic, Calcutta-700 025

A bitch aged about 10 years who was never bred was operated in the South Calcutta Veterinary Clinic for a characteristic granulomatous round growth, haemorrhagic in nature, on the upper left flank aspect of the body of the animal under general anaesthesia. Histopathologically the growth was found to be embryonal Rhabdomyosarcoma (alveolar type). The animal succumbed six months

post-operation after generalised manifestation of the secondary growth throughout the body surface

Multiple Canine Cutaneous Histiocytoma in An Alsatian Bitch and Its Surgical Management

Kumar, N., M. Hoque, G.R. Singh & Kalicharan
Indian Veterinary Research Institute, Izatnagar

A seven year old Alsatian bitch was referred with a firm ulcerating draining mass on left lateral abdominal wall. Clinical examination revealed no fixation of the mass to the underlying tissue and it measured about 5 cm in diameter. The bitch was operated under thiopentone induction, maintained by halothane. On histopathological examination, the growth was indentified as canine cutaneous histiocytoma.

After one year, the animal was again presented to the division with a firm ulcerating draining mass on the same site. Few firm masses ranging from 3 to 5 cm in diameter were also seen on right side of neck anterior to stifle, post scapular and prefemoral region on the left side. The ulcerating mass on the abdominal wall was removed under thiopentone anaesthesia. Histopathological examination again revealed canine cutaneous histiocytoma with copious lymphocytic infiltration at the the margin of the tumorous mass. The animal showed uneventful recovery and there was no recurrence for the last six months.

Management of Cavernous Haemangioma in A Bitch

Goti, B.S., N.H. Kelawala, R.R. Parsania & B.M. Jani

College of Veterinary Science & A.H., Anand

A four year old Pomerian bitch was presented with a cricket ball size swelling at perineal region with a history of urinary incontinence. Clinical examination revealed a tumorous mass originating from mucous membrane of clitoris. It was decided to excise the mass by performing episiotomy under lumbo-sacral epidural analgesia. Complete tumorous mass was excised following ligation of the stump at the clitoris. Histopathological examination revealed cavernous haemangioma. Surgical excision resulted in an uneventful recovery without any post-operative

complications and recurrence was not noticed upto six months following operation.

Surgical Management of Lympho-Sarcoma Involving Mammary Gland in An Alsatian Bitch

Sharda, R., S.K. Tiwari & R.C. Ghosh

College of Veterinary Science & A.H., Anjora, Durg (M.P.) 491 001

An Alsatian bitch, about eight year old, was brought to the Department of Surgery and Radiology with the history of tumor-like growth on the ventral side of the abdomen. Careful examination revealed presence of tumor involving mammary gland. The animal was premedicated with atropine sulphate (0.65 mg), triflupromazine HCl (60 mg) followed by ketamine hydrochloride (150 mg) to achieve optimum anaesthesia. The histopathological examination of the growth revealed presence of lymphosarcoma affecting the left inguinal mammary gland. The animal recovered normally within eight days.

An Atypical Myxoma in A Dog

Srivastava, A.K.

I/C Canine Therapy, State Veterinary Polyclinic, Lucknow. (U.P.)

A five year old German Spitz dog was brought to the polyclinic, having a large growth emanating from the volar surface of the left fore limb. The lesion had first appeared one year previously and had continuously enlarged. The mass was soft, sessile, excoriated and hemorrhagic. There was no physical evidence of metastasis in the regional lymph node. The mass was excised under general anaesthesia. The recovery was uneventful.

The histopathology revealed myxoma with stellate connective tissue cells that had long branching fibrils. Production of mucin in the intercellular substance substantiated the indentification.

Cryosurgical Treatment of Dermoid Cyst in A Calf

Multiple Canine Cutaneous Histiocytoma in An Alsatian Bitch and Its Surgical Management

Kumar, N., M. Hoque, G.R. Singh & Kalicharan
Indian Veterinary Research Institute, Izatnagar

A seven year old Alsatian bitch was referred with a firm ulcerating draining mass on left lateral abdominal wall. Clinical examination revealed no fixation of the mass to the underlying tissue and it measured about 5 cm in diameter. The bitch was operated under thiopentone induction, maintained by halothane. On histopathological examination, the growth was indentified as canine cutaneous histiocytoma.

After one year, the animal was again presented to the division with a firm ulcerating draining mass on the same site. Few firm masses ranging from 3 to 5 cm in diameter were also seen on right side of neck anterior to stifle, post scapular and prefemoral region on the left side. The ulcerating mass on the abdominal wall was removed under thiopentone anaesthesia. Histopathological examination again revealed canine cutaneous histiocytoma with copious lymphocytic infiltration at the the margin of the tumorous mass. The animal showed uneventful recovery and there was no recurrence for the last six months.

Management of Cavernous Haemangioma in A Bitch

Goti, B.S., N.H. Kelawala, R.R. Parsania & B.M. Jani

College of Veterinary Science & A.H., Anand

A four year old Pomerian bitch was presented with a cricket ball size swelling at perineal region with a history of urinary incontinence. Clinical examination revealed a tumorous mass originating from mucous membrane of clitoris. It was decided to excise the mass by performing episiotomy under lumbo-sacral epidural analgesia. Complete tumorous mass was excised following ligation of the stump at the clitoris. Histopathological examination revealed cavernous haemangioma. Surgical excision resulted in an uneventful recovery without any post-operative

complications and recurrence was not noticed upto six months following operation.

Surgical Management of Lympho-Sarcoma Involving Mammary Gland In An Alsatian Bitch

Sharda, R., S.K. Tiwari & R.C. Ghosh

College of Veterinary Science & A.H., Anjora, Durg (M.P.) 491 001.

An Alsatian bitch, about eight year old, was brought to the Department of Surgery and Radiology with the history of tumor-like growth on the ventral side of the abdomen. Careful examination revealed presence of tumor involving mammary gland. The animal was premedicated with atropine sulphate (0.65 mg), triflupromazine HCl, (60 mg) followed by ketamine hydrochloride (150 mg) to achieve optimum anaesthesia. The histopathological examination of the growth revealed presence of lymphosarcoma affecting the left inguinal mammary gland. The animal recovered normally within eight days.

An Atypical Myxoma in A Dog

Srivastava, A.K.

I/C Canine Therapy, State Veterinary Polyclinic, Lucknow. (U.P.)

A five year old German Spitz dog was brought to the polyclinic, having a large growth emanating from the volar surface of the left fore limb. The lesion had first appeared one year previously and had continuously enlarged. The mass was soft, sessile, excoriated and hemorrhagic. There was no physical evidence of metastasis in the regional lymph node. The mass was excised under general anaesthesia. The recovery was uneventful.

The histopathology revealed myxoma with stellate connective tissue cells that had long branching fibrils. Production of mucin in the intercellular substance substantiated the indentification.

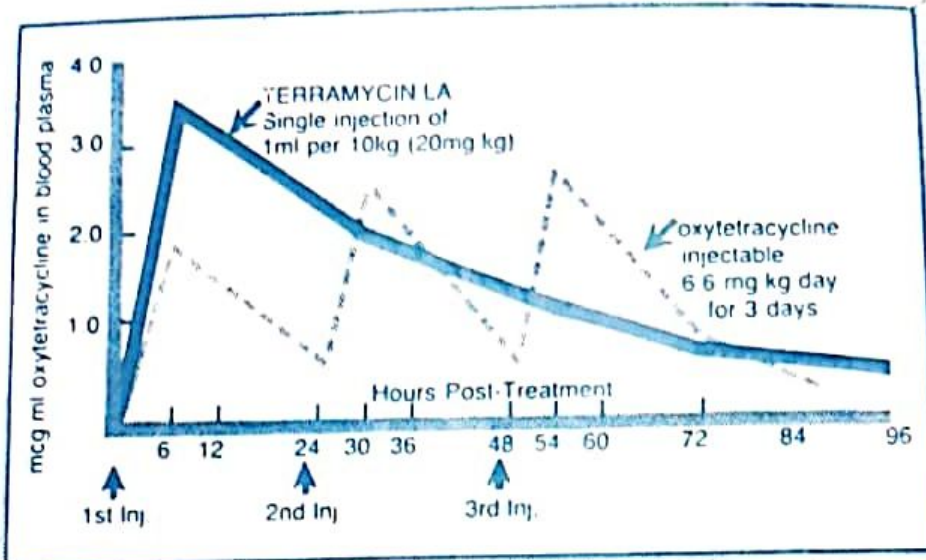
Cryosurgical Treatment of Dermoid Cyst in A Calf

Vasantha, M.S., G.V. Lakshmi pathi
College of Veterinary Science, Tirupati.

A 20 day old calf was brought to the hospital with congenital dermoid cyst in the left eye covering the cornea and sclera. Dermoid cyst was treated by cryosurgery. Blunt end of the scalpel was cooled by immersing in liquid nitrogen and then applied on the superficial layer of the dermoid cyst. The treatment was repeated on alternate days. Cortisone eye drops with antibiotic was instilled for 10 days. After 3 cryosurgical treatment, the entire dermoid cyst had dried and showed signs of separation from the eye ball. Examination of the eye, after 30 days, showed complete recovery with no traces of dermoid cyst. There was restoration of vision.

Terramycin*/LA

oxytetracycline



Rapid Acting

High blood levels in 15-30 minutes provide prompt response.

Long Acting

Sustained antibiotic levels for 3-5 days provide complete therapy.

A single-shot provides complete treatment

Dosage & Administration Cattle, Buffaloes, Sheep & Goats:

A single dose of 1 ml per 10 kg bodyweight. Divide the dose. Administer at 2 to 3 sites by deep intramuscular injection.

Poultry: 0.25 ml per kg bodyweight by subcutaneous injection at one site.



Animal Health

* Trademark of Pfizer Inc., U.S.A.

pfizer