THE VETERINARY PATHOLOGY REPORT

Australian Society for Veterinary Pathology
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DIARY OF COMING EVENTS.

17th-18th May, 1986- Annual Conference ASVP,Veterinary School, University of Queensland, Brisbane.
18th-23rd May, 1986 - Animal Conference, Wildlife Disease Association, Tamborine Mountain, Queensland.
19th May, 1986 - Seminar on Johne's Disease, Veterinary Research Institute, Parkville, Melbourne.
18th-22nd May, 1987 - Post-Graduate Refresher Course on Gross Pathology, University of Sydney.
16th-21st August, 1987 - World Veterinary Congress, Montreal, Canada.

PRESIDENT'S REPORT.

Planning for our Annual Conference to be held in Brisbane on 17th and 18th May 1986 is almost complete. A draft program for Day 1 is included in this edition of "The Veterinary Pathology Report". I am sure that you will all agree that it is a very exciting one and definitely worth travelling, even to Queensland, to attend. To assist with the local organisation, please return your registration form and the required money to Ian Links as soon as possible. You are most unlikely to get such value for $20.00 anywhere else on the scientific conference circuit.

Many of our members have contributed a great deal to the staging of this conference. We can blame or thank Phil Ladds for the original idea but our gratitude goes to him for suggesting many of the speakers. Roger Kelly also has twisted the arms of a few likely speakers and has been a tower of strength making arrangements at the University of Queensland. The boat cruise on the Brisbane River should be a fitting finale for immunopathology as long as it doesn't lead to toxicology. Finally, John Searson has performed a splendid job organising our Trade Exhibit. Besides giving of their time, many of these companies have parted with donations so please support them by taking an interest in their wares.

Apart from the above activities, the Executive of the Society has been busy recently on a number of other fronts. With plenty of cajoling from Tom Hungerford, the postgraduate refresher course, "Through the Naked Eye - The gross pathology of domestic animals", is gradually taking shape. Despite considerable effort, the Australian Registry for Veterinary Pathology is in a state of limbo pending the arrangement of suitable financial backing.

Finally, there are some points worthy of consideration before our Annual Meeting. The venue and nature of our Annual Conference for 1987 will be discussed. We suggest that it should be held the weekend before or after the postgraduate refresher course in Sydney. As we may have had our fill of pathology during the week, the Conference could be reduced to one day. If this is decided upon, should the day be devoted to a theme or should it be for a mixture of presentations from members? To assist members prepare for the College Examinations and to match in with the refresher course, General Pathology would be an eminently suitable theme. Secondly, the Australian Registry of Veterinary Pathology will be discussed and some pointers in this direction are given in the section below.

The Executive expects a good attendance in Brisbane, don't miss it, and we look forward to seeing you then.

ANNUAL CONFERENCE. A.S.V.P. 1986 – 17th & 18th May.

VENUE: The Veterinary School, University of Queensland, St. Lucia, Brisbane 4067.

REGISTRATION: $20 which includes morning and afternoon teas. All members of the ASVP will receive a copy of the proceedings either by mail or to be picked up at the conference. Emergency contact number at the Veterinary School during the conference will be 07-377-3685.

ACCOMODATION: Has been organised at CROMWELL COLLEGE on the University campus. Single room accommodation is available for the nights of Friday 16th and/or Saturday 17th at $30 /night. Unfortunately no rooms are available for Sunday night the 18th. This includes full board of which a buffet lunch will be provided at the conference venue on Saturday and Sunday. A surcharge for lunch will be levied on those members who are not staying at the college. Contact phone numbers at the college are 07-870-1151 (office) or 07-371-2586 (student quarters).

Bookings should be made through the secretary of the ASVP (on the slip enclosed In this issue of the Vet. Path. Report) with cheques being made out to the “ASVP”.

ALTERNATIVE ACCOMMODATION: This should be organised personally by the member. There are two motels approximately 2 km from the University. These are the Forest Lodge Hotel, Indooropilly and the Coronation Hotel, Milton. We make no claims as to their standard but we understand the latter is more expensive. A range of alternative accommodation is obviously available elsewhere In Brisbane.

DINNER AND PADDLEWHEEL BOAT CRUISE ON THE BRISBANE RIVER (SATURDAY I7th MAY): This has been booked exclusively for the members and guests of the ASVP. You are welcome to bring spouses and friends. The boat will leave from the University Wharf at 7.3O p.m. and return at approximately 11.30 p.m. The cost will be $30 /head which includes a smorgasbord dinner. It does not include liquid refreshments which must be purchased on board the boat.

ANNUAL CONFERENCE - ASVP - DAY 1.

The organisation of day 1 is now complete and as you can see from the program below there should be something for everyone with a field of eminent speakers "gathered at the fray".

Program Day 1 - Saturday 17th May. 1986

8.30am	REGISTRATION.
Session 1	Chairman: John Glastonbury
9.00am	Guest Speaker - Professor Peter Doherty - "Experimental analysis of the inflammatory process in immunopathological disease".
9.45am	W.F. Robinson end T.M. Ellis - "Some aspects of immunopathology of caprine arthritis - encephalitis virus infection".
10.05am	D. Palmer - "The localisation of viral antigen in formalin fixed paraffin embedded sections.
10.15am	Morning Tea and Trade Exhibit.
Session 2	Chairman: Ian Links
11.15am	Guest Speaker - Pr C.J. Bishop - "Morphological aspects of cell-mediated immunity.
12.00pm	R.A. Foster, P.W, Ladds, D. Hoffman - "Immunohistochemical studies of local immunity in the genital tract of the ram".
12.10pm	Lunch and Trade Exhibit.
Session 3	Chairman: Richard Whittington
2.00pm	Guest Speaker - Professor W.J. Ha1liday - "The latest developments in tumour immunopathology".
2.45pm	A. Ross - "Immunoperoxidase staining of papilloma virus infections in cattle and sheep".

3.05pm	W. Townsend, P.W. Ladds and M. Brandon - "Immunohistochemical localisation of T-lymphocytes in ovine aural squamous cell carcinoma".
3.15pm	Afternoon Tea and Trade Exhibit.
Session 4	Chairman: John Searson
4.00pm	M.D. Gorrell - "Application of monoclonal antibodies to ovine lymphocyte surface antigens".
4.20pm	P. Young - "Immunoperoxidase staining in IBR virus infections".
4.40pm	G. Mitchell - "Systemic lupus erythematosus".
5.00pm	P.W. Ladds. - Concluding address.
5.20pm	Trade Exhibit, Hospitality and Informal Discussions.
7.00pm	Boat cruise, Brisbane River.

ANNUAL CONFERENCE - ASVP - DAY 2.

We still need more general contributions for day 2. Search through your list of interesting cases over the last year, preliminary research findings you want to air before publication, etc.etc. This is your forum so make the most of the opportunity. Remember first in - best dressed, but at this stage there is still room available. Give Ian Links (069 230934} or John Glastonbury (069 230929) a ring if you have any questions about the suitability of a possible presentation. Instructions for preparation of the abstracts were given in the last Vet. Path. Report. The sooner you get the abstracts to us the sooner we can have the proceedings finalised. Time is running short to have it mailed out prior to everyone leaving for school holidays/the AVA Conference etc.

Also keep in mind matters for the Annual General Meeting on Day 2.

TRADE EXHIBIT.
A feature of this year's ASVP Conference will be a trade exhibit on Saturday 17th May. At present the following companies have indicated their intention to mount displays:

* Bacto Laboratories
* Bio Scientific Pty. Ltd.
Carl Zeiss
Medos
* John Morris Scientific
Quantum Scientific
* Stansens
Scientific Systems
* Wellcome

* These companies have also financially supported our 1986 Conference.

The trade exhibit will be open at morning and afternoon breaks, during lunch and for about 2 hours at the end of the day's session prior to the evening boat cruise and dinner. Do not miss this opportunity to see the latest equipment and reagents specifically relating to immunopathology. Exhibitors will also have equipment of more general application to veterinary pathology on display.

THE AUSTRALIAN COLLEGE OF VETERINARY SCIENTISTS.

During February seven of our members were successful in the membership examinations for the Australian College of Veterinary Scientists and our hearty congratulations go to them all. Geoff Mitchell, Sue Friend, Malcolm Lancaster, Neil Sullivan, John Seaman and Dick Miller all survived the Pathology exam while Ian Links was successful n Microbiology.

Once again we would like to encourage all those members of the Society who have yet to take the plunge to nominate themselves for these examinations. Preparation for the examinations should be made easier by a recent decision of the Council of the College. They have decided that candidates will have to register their intent to take the examination and the relevant chapter will be requested to appoint a supervisor for each candidate. By this means each candidate should have more direct supervision of their preparation and study.

Post-graduate Refresher Course on Gross Pathology (May, 1987)

"Through the Naked Eye - The gross pathology of domestic animals".

The program for this refresher course which is to be held at the University of Sydney under the auspices of the post-graduate committee in Veterinary Science from the 18th to 22nd May, 1987 is now finalised. A copy of this program is set out below and we would appreciate you encouraging your colleagues to attend. Unfortunately the post-graduate committee has decided against the inclusion of short video films demonstrating the post-mortem techniques for the various animal species. This decision was taken because of the cost involved in the preparation of the films and technical difficulties in the lecture theatre.

MONDAY 18th May

8.30-8.50	Registration	
8.50-9.00	Announcements	

Cattle

1	9.00-9.43	Diseases of the foetus and neonate	I. McCausland
	9.45-9.55	Discussion	
2	10.00-10.45	The alimentary tract and liver	RVL Orange
	10.45-11.00	Discussion	
	11.00-11.30	Informal discussion and morning tea	
3	11.30-12.15	The respiratory, cardiovascular and haemopoietic systems	R. Cook
	12.15-12.30	Discussion	
	12.30-1.30	Lunch	
4	1.30-2.15	Diseases of the skeletal system and skin	K Thompson
	2.15-2.25	Discussion	
5	2.30-3.15	The nervous and muscular systems	P. Harper
	3.15-3.30	Discussion	
	3.30-4.00	Informal discussion and afternoon tea	
	4.00-4.45	The reproductive and urinary systems	P. Ladds
	4.45-5.00	Discussion	

TUESDAY 19 May

	8.50-9.00	Announcements	
Dogs			
7	9.00-9.45	The musculoskeletal, nervous and urinary systems	N. Sullivan
	9.45-9.55	Discussion	
8	10.00-10.45	Diseases of skin, liver and alimentary system	R. Sutton
	10.45-11.00	Discussion	
	11.00-11.30	Informal discussion and morning tea	
9	11.30-12.15	The reproductive, respiratory, cardiovascular and haemopoietic system	S Friend
	12.15-12.30	Discussion	
	12.30-1.30	Lunch	
Cats			
10	1.30-2.15	The nervous, musculoskeletal, reproductive, cardiovascular and haemopoietic systems	R Sutton
	2.15-2.25	Discussion	
	2.15-2.26		
11	2.30-3.15	The respiratory, alimentary and urinary systems	J Spillman
	3.15-3.30	Discussion	
	3.30-4.00	Informal discussion and afternoon tea	
12	4.00-4.45	Diseases of cage birds	R. Reece
	4.45-5.00	Discussion	

WEDNESDAY 20 May

	8.50-9.00	Announcements	
Pigs			
13	9.00-9.45	Diseases of the foetus, neonate and reproductive systems	R. .T Badman
	9.45-9.55	Discussion	
14	10.00-10.45	The alimentary tract and liver	J. Glastonbury
	10.45-11.00	Discussion	
	11.00-11.30	Informal discussion and morning tea	
15	11.30-12.15	The nervous, respiratory and musculoskeletal systems	L. Simms
	12.15-12.30	Discussion	
	12.30-1.30	Lunch	
16	1.30-2.15	Diseases of the skin, cardiovascular, haemopoietic and urinary systems	J. Boulton
	2.15-2.25	Discussion	

Goats

17	2.30-3.15	Gastrointestinal tract, liver, respiratory system and skin	K. Thompson
	3.15-3.30	Discussion	
	3.30-4.00	Informal discussion and afternoon tea	
18	4.00-4.45	Nervous system, bone, muscle and reproductive tract	K. Thompson
	4.45-5.00	Discussion	

THURSDAY 21 May

	8.50-9.00	Announcements	

Horses

19	9.00-9.45	Diseases of the foetus. and neonate and reproductive tract	R. Miller
	9.45-9.55	Discussion	
20	10.00-10.45	The liver and alimentary, respiratory and cardiovascular Systems	K. Thompson
	10.45-11.00	Discussion	
	11.00-11.30	Informal discussion and morning tea	
21	11.30-12.15	Diseases of the skin	R. Pascoe
	12.15-12.30	Discussion	
	12.30-1.30	Lunch	
22	1.30-2.15	The musculoskeletal system	L. Jeffcott
	2.15-2.25	Discussion	

Deer

23	2.30-3.15	Diseases of deer	W. J. Hartley
	3.15-3.30	Discussion	
	3.30-4.00	Informal discussion and afternoon tea	

Fish

24	4.00-4.45	Diseases of fish	J. D. Humphrey
	4.45-5.00	Discussion	

FRIDAY 22 May

	8.50-9.0	Announcements	

Sheep

25	9.00-9.45	Diseases of the foetus and neonate	W. J. Hartley
	9.45-9.55	Discussion	
26	10.00-10.45	The alimentary tract and liver	C. Lenghaus
	10.45-11.00	Discussion	
	11.00-11.30	Informal discussion and morning tea	

27	11.30-12.15	The respiratory, cardiovascular and haemopoietic systems	A. Jackson
	12.15-12.30	Discussion	
	12.30-1.30	Lunch	
28	1.30-2.15	Diseases of the skeletal system and skin	A. Ross
	2.15-2.25	Discussion	
29	2.30-3.15	The nervous and muscular systems	W. J. Hartley
	3.15-3.30	Discussion	
	3.30-4.00	Informal discussion and afternoon tea	
30	4.00-4.45	The reproductive and urinary systems	R. Rahaley
	4.45-5.00	Discussion	

The Australian Registry of Veterinary Pathology.

As stated earlier the development of our registry is now in limbo. Regrettably the McGarvie-Smith Institute rejected our application for funding to provide Bill Hartley with half salary for three years. They indicated that the amount of money involved was too great and expressed concern that the potential users of the registry were not apparently contributing towards the cost of its establishment and running. Following discussions with members of the board of the institute we have resubmitted our application for a lesser amount of money together with an outline of the contributions being made by other organisations such as the New South Wales Department of Agriculture and the Post-Graduate Committee in Veterinary Science at the University of Sydney.

There are a number of points regarding the future of our registry which we will have to discuss at the Annual Meeting.

Do the members of the Australian Society of Veterinary Pathology think that the establishment of the registry is a worthwhile exercise?

What sources of financial support are available and what is the likelihood of obtaining contributions from Universities and the other State Departments of Agriculture?

Some mechanism will have to be established for the ongoing management of the registry after the Executive of our Society moves from the state of New South Vales. Thinking on the positive side Bill Hartley is still interested in hearing of material worthy of inclusion in the registry. One way of achieving this would be if the Directors of all the Regional Laboratories and University institutions in Australia could forward to Bill copies of their monthly reports, if they produce such documents. They should be sent to Dr. Bill Hartley, C/- Taronga Park Zoo, P. 0. Box 20, Mosman N.S.W. 2088.

Wildlife Disease Association Australasian Section.

The Annual General Meeting will be held between 18th and 22nd May at Tamborine Mountain, about 70 km from Brisbane. WDA has arranged transport from the University of Queensland to Tamborine Mountain which leaves about 5.30 pm on Sunday afternoon i.e. after the ASVP meeting. As always, an interesting mix of scientific presentations and tours of national parks and wildlife establishments is planned. Contact Judith Melksham at Alan Fletcher Research laboratories, 27 Magazin Street, Sherwood, Qld. 4075.

JOHNE'S DISEASE SEMINAR.

Geoff Mitchell (RVL Benalla) advises that he is co-ordinating a seminar on Johne's Disease to be held at the Veterinary Research Institute, Parkville, Melbourne, commencing at 9 a.m. on Monday, 19th May, 1986. The principal speaker will be Dr. Dick Merkal, internationally renowned expert on Johne's Disease from the U.S. Department of Agriculture, Ames, Iowa, U.S.A. He will be supported by presentations from a wide range of local researchers and field and laboratory diagnosticians covering Johne's disease in cattle, sheep and goats. The seminar is planned to finish between 3 and 4 p.m. For further enquiries contact Geoff Mitchell direct on 057-622933.

Ceroid Lipofuscinosis: A request for material .

Bill Hartley is involved with Professor Bob Jolly at the Massey University Veterinary School with the production of a comprehensive review of the comparative pathology of ceroid lipofuscinosis in non-human animals. If any A.S.V.P. members have unpublished cases in this area or cases of apparent excess lipofuscin-like pigment deposition in any organ he would like to know about them and would appreciate materials for a detailed study. Thus he would particularly like formalin fixed wet material, but would also gladly accept paraffin blocks on loan or 2 or 3 unstained sections.

Samples should be sent to Dr. Bill Hartley at Taronga Zoo, P. 0. Box 20, Mosman, N.S.W. 2088, together with relevant history etc. of the case.

MEMBERSHIP SUBSCRIPTIONS.

To remind those members who have not yet paid their 1985-86 subscriptions of $10 we have put a large red $ sign on the address label on the envelope and on the front of their Vet. Path. Report. You can use the conference registration slip for payment of subscription. The coffers need filling to tide us over the costs of the Annual Conference. The subscription for 1986/87 is to be determined at the Annual General Meeting on Day 2 of the Conference.

STATE REPORTS.

TASMANIA - Prepared by David L. Obendorf

1. Gill Disease in sea-caged salmonids

First seen at Nubeena in the autumn in 1985 in rainbow trout. Again recognized in the late spring of 1985 when water temperatures rose above 16-17ºC and has continued to be a problem throughout the warmer months in both rainbow trout and Atlantic salmon. Important variables in this disease appear to be site, in that the disease is not seen at Dover. Even fish transferred from Bruny Island to Dover have recovered. Water temperature and salinity may be critical determinants for the establishment and maintenance of the disease. The disease does not appear at low stocking rates of fish in sea-cages. Net fouling with algae has been a major problem and its role in the pathogenesis of the disease by retaining solids and reducing water flows needs further investigations.

Clinical Signs - Fish show signs of respiratory distress, sluggish movement with opercula open. At necropsy the fish are in good condition often with full stomachs. Lesions are primarily in the gills which are covered with mucus and adherent to each other.

Pathology - The gills exhibit metaplasia of the epithelium, loss of secondary lamella and fusion of filaments. There is a mononuclear cellular reaction. Hyperplasia of mucus cells and mucus formation is prominent.

Parasitology - Amoebae are very numerous on fresh specimens but do not appear to be retained well in fixed specimens. The organisms are loosely applied to the epithelium although in some instances some erosion of the epithelium has occurred.

Bacteriology - Bacteria have been numerous in some specimens, but many of these would be considered post-mortem invaders. No accumulations resembling bacterial gill disease have been seen. It is suggested the initial gill damage may occur due to, deleterious conditions during the freshwater rearing phase, 'osmotic shock' during sea water acclimatisation, and the effects of raised temperatures, suspended solids, presence of waste products and reduced oxygen availability in fouled net cages. Proliferation of amoebae in the environment may be due to increase temperatures and availability of nutrients. The attachment of amoebae to gills -and resultant gill irritation may be attracted by exfoliating cells and attached bacteria.

Treatment - Baths of 0.5 ppm benzalkonium chloride has cleaned gills, but has not prevented mortalities. Formalin and chelated copper compounds have provided a benefit. Potassium permanganate baths and Emtryl (Dimetridezole) in the food have also been suggested but as yet not tried. (B.L. Munday).

2. Hairy Vetch Poisoning Revisited

(Of interest relative to contribution by R.C. Peet in February issue and came in Renal Pathology Case Studies).

1969 Dairy cows grazing chou moellier for 24 hours dally. Animals showed loss of condition, thickening, fissuring and scurfiness of the skin, especially of the head and neck. Some cows had an ocular discharge and others an intermittent moist cough.

Necropsy findings included thickening of the bronchioles, miliary lesions in the lung parenchyma, shrunken, slightly fibrotic liver and enlarged adrenals. Histopathological lesions were hepatitis, subacute bronchiolitis. Interstitial nephritis, adrenalitis and dermatitis.

1984 Article on hairy vetch poisoning in horses led back to original article by Panciere et al (J.A.V.M.A., 1966, 148 : 804-808) describing "A disease of cattle grazing hairy vetch pasture". The lesions were remarkably similar to those seen in the Tasmanian outbreaks.

Respective enquiry about the presence of hairy vetch on the property in 1969 was unrewarding.

Slides of the condition were shown to Professor J. King who was visiting the Bairnsdale Regional Veterinary Laboratory. His opinion was that the lesions, especially those in the adrenal were typical of "hairy vetch poisoning". He also indicated that there is some doubt as to whether or not the condition is a true intoxication.

(Barry L. Munday)

3. Verminous Pneumonia n a Rhesus Monkey

A 32 year old male rhesus monkey (Macaca mulatta) from a travelling circus died suddenly whilst on tour in Tasmania. The animal had cardio-pulmonary incompetence as a result of endocardiosis of the aortic valves causing left ventricular dilatation. In addition there was a pneumonitis and pleurisy characterised by alveolar wall thickening, focal inflammatory cell infiltrates and medial hypertrophy of arterioles. Numerous parasites were seen in section. Dissection of the formalin fixed lung produced numerous mites within the bronchioles and emphysematous lung tissue. The mites were identified as Pneumonyssus simicola - a very common lung parasite of rhesus monkeys. P. simicola is also recorded from macaques and cynomologous monkeys. (Barry L. Munday and David L. Obendorf).

4. HYPERKERATOSIS IN ECHIDNAS

Thickened proliferating skin lesions from captive-reared juvenile echidnas were examined for the presence of an aetiological agent (bacteria, fungi or virus). Coagulase-positive Staphylococcus was isolated from the lesions. Phosphotungstic acid staining of skin macerate revealed pox-virus particles with a typical ovoid appearance, "ball of yarn" internal structure and measuring approximately 160 x 75 nm. No viral inclusions within epithelial cells were detected by light microscopy.

A molluscum contagiosum viral skin condition is seen in wild macropods (especially red and grey kangaroos and euros) usually as single lesions on the tall, head or limbs. Parma wallaby herpes virus may also cause skin lesions at the mucocutaneous junction areas of lips, eyelids, perianal regions and occasionally the thin skinned areas of the body. (David Obendorf)

5. ALPHA FUCOSIDOSIS

This inherited metabolic lysosomal storage disease is known to occur in Australia in English Springer Spaniel dogs. Two litters recently tested in the south of Tasmania yielded 1 homozygous normal, 3 homozygous recessive and 3 heterozygous pups while a second litter yielded 6 normal and 2 heterozygous pups.

The first litter was the result of the mating of 2 heterozygous parents. The second litter one heterozygous and one normal parent. Alpha fucosidosis does not usually manifest clinically in the English Springer Spaniel until it is about 18 months of age. This obviously allows for the breeding of homozygous recessive animals. The initial signs are vague neurological signs which develop into deafness, blindness, inability to swallow by about 2 to 2.5 years of age. Affected dogs are unresponsive to treatment.

The disease causes swelling of the cranial nerves and nerves of the brachial plexus and associated ganglia. The swelling is due to oedema and an increase in loose endoneurial connective tissue and foamy macrophage accumulation. Lysosomal storage also occurs in other tissues such as renal tubular cells and pancreatic acinar cells. Enzyme tests on blood are available to detect homozygous recessive and heterozygous animals. (Roy Mason}

New South Wales - prepared by Mark Carrigan

BOVINE ABORTION/STILLBIRTH - From John Boulton, R.V.L. Wollongbar.

I have reviewed 100 recent cases in which foetuses were cent to this laboratory. It was the only specimen in 44 cases, but placenta was also sent in 17 cases, maternal blood In 42, and herd blood in 6 cases.

Routine tests were gross pathology and histopathology of lung, heart, liver, kidney, brain and placenta; wet preparation of stomach contents, lung, liver and placenta by non-selective aerobic method, and for Br. abortus and C. fetus by ABAH methods; culture of kidney for Leptospires in EMJH with rabbit serum. Foetal heart blood or serous fluid was tested for Br. abortus by ELISA, L. hardjo and L. pomona by MAT from 1/10, and Akabane, Aino and MD viruses by G.D.P.T. Maternal or herd blood was tested for L. hardjo and L. pomona from 1/100 and for Br. abortus.

Diagnoses were:

Dystocia or immediate post parturient trauma	10
Foetal malformation	7
Abortion caused by – sporozoa	15
Leptospira spp.	12
C. fetus	7
E. coli	2
Mucosal disease virus	1
Toxicity or deficiency	2
Septic abortion, agent, not identified	13
No diagnosis: satisfactory specimen	11
decomposed foetus	20
	100

Sporozoal infection was suspected in foetuses with non-suppurative epicarditis/myocarditis, portal hepatitis and multifocal necrotising encephalitis (McCausland and others, Cornell Vet. 1984, 74: 146-154) but organisms were not detected in any of them - see next article. Other patterns of inflammation were assumed to indicate septic abortion; Leptospires were incriminated in 7 of these, C. fetus fetus in 4, C. fetus venerealis in 2, C. fetus (subspecies not determined) in 1, and E. coli in 2, but 7 had dense mixed bacterial flora and 6 yielded no agent.

Two foetuses had L. hardjo titres of 300: one had peritonitis and the other meningitis but there were no other lesions. The dam of one had titre of < 100; the other's dam was not tested. Ten diagnoses of leptospirosis were based on maternal or herd serology, although some titres were of equivocal significance; five of these foetuses had various inflammatory lesions. Leptospires were not cultured from any foetus.

The malformations were arthrogryposis/hydranencephaly, hydrocephalus, porencephaly and cleft palate. The suspected toxic or deficiency diseases were characterised by biliary hyperplasia and fibrosis (1 case), and myocardial mineralisation (1case). Significant lesions were not found in the foetus which had mucosal disease antigen. Fungi, Br. abortus and Akabane and Aino viruses were not confirmed in any case.

SPOROZOA IN AN ABORTED BOVINE FOETUS - From John Boulton, R.V.L., Wollongbar.

'Sporozoal abortion' has been diagnosed fairly frequently by this laboratory over the past 3 years, but most diagnoses have been solely based on the morphology of lesions. Sporozoan cysts have only been detected in one recent case (which was not included in the series above).

The foetus was 6 months gestational age and was little autolysed when examined. The principal lesions were microscopic and confined to the heart and brain. There was moderately severe infiltration of the epicardium and myocardial interstitium by mononuclear cells. Scattered throughout the brain were many small foci of mineralisation of individual cells and small vessels, or of necrosis with histiocyte and lymphocyte infiltration. Two sporozoan cysts were detected in one section of forebrain; none of the other 5 sections which were routinely cut had cysts, even though all had lesions. The cysts were thin walled, 15 to 20 µm dia., and contained many 1 x 2. µm ovoid zoites.

To estimate the prevalence of cysts in the sections, Roger Cook cut out the block in which they were first found.

Sections with no lesion	7
Sections with lesions, no cysts	125
Sections with lesions and cysts	33
Total sections cut:	165

Eleven separate cysts were detected in the block. There was no inflammation around one of them and scant inflammation around 2 others. Four foci of more active inflammation had 1, 1, 2 and 4 cysts. The lesion with 4 cysts was 250 µm dia. (50 sections) deep; only 1 section of it had more than 1 cyst. Many lesions, especially the more mineralised ones with scant cellular infiltration, had no cysts.

In this confined case of sporozoal abortion, even though most brain sections contained lesions, only 20% of then contained sporozoan cysts.

REGIONAL VET LAB. WAGGA - Ian Links.

SHEEP.

ANTHRAX - was confined in three flocks by demonstration of Bacillus Anthracis in polychrome methylene blue stained smears of peripheral blood. In one flock there was s 44% mortality in 1260 3-6 month-old Merino weaners with a history of sudden death with rapid putrefaction.

LUPINOSIS - was confirmed in 6 flocks. In one outbreak 600 7-month-old first cross ewe weaners were placed on rape stubble contaminated with lupins which were probably planted at the rate of 1 bag/hectare. Within 2 weeks of grazing in the paddock during showery weather a mortality rate of 25% occurred. Grossly the dead animals were severely jaundiced and had bright yellow livers. Histological examination revealed diffuse hepatic fatty change with individual hepatocyte necrosis in periacinar areas. These changes were suggestive of the per acute form of lupinosis with no periacinar fibrosis evident. The other outbreaks had typical histological lesions of periacinar necrosis and fibrosis, bile stasis, variable fatty change and hepatic megalocytosis. One animal also had lesions of hepatic encephalopathy as well as marked polioencephalomalacia.

CHRONIC COPPER POISONING - 3 outbreaks with mortality rates of 5%, 4% & 1% in sheep grazing subterranean clover and access to plants containing pyrrolizidine alkaloids. Classical lesions included bile stasis, megalocytosis and the presence of "copper" pigment In the liver and haemoglobinuric nephrosis.

CATTLE.

PASTEURELLOSIS – 10% of 100 young steers in good body condition displayed severe respiratory distress with a final case fatality rate of 43%. Pasteurella haemolytica, Type A was recovered in heavy pure growth from a specimen of lung. There was severe sub-acute fibrinous pneumonia but no evidence of concurrent viral infection on histological examination.

SELENIUM DEFICIENCY - low glutathione peroxidase levels were detected in heparin blood samples from 3 dairy herds with a history of infertility. A survey conducted by the N.S.W. Department of Agriculture (Central Veterinary Laboratory, Glenfleld) during winter 1984 revealed that selenium insufficiency (measured in bulk milk samples) is common in dairy herds in New South Vales. Recent research suggests a link between low selenium levels and several of the most important herd health problems including long intercalving intervals, low first service non-return rates, failure to show oestrus for an extended period after calving and a high incidence of clinical and subclinical mastitis. Selenium supplementation in several herds using intraruminal pellets resulted in significant improvements in fertility and decreases in the incidence of subclinical mastitis, further studies on selenium in dairy cattle are planned by a team from CVL Glenfield.

SOUTH AUSTRALIA - Peter Phillips

Peritonitis in an Eastern Barred Bandicoot - Peter Phillips.

An adult male eastern barred bandicoot (Perameles gunnii) trapped in Tasmania on 7.2.86, died suddenly in a small captive colony at Flinders University on 13.3.86 without any clinical signs having been observed. Apart from some recent trauma to the tail tip the only pathology noted was a severe purulent peritonitis, from which a pure growth of Pasteurella mu1tocida was cultured.

E. coli Encephalomalacia in pigs - Peter Phillips.

In an intensive piggery of 1300 breeders, 70 weaners died over a weekend following clinical signs of ataxia, lateral recumbency, forelimb paddling and nystagmus. Post mortem findings were slightly injected small intestines and yellowish malacic foci in the brain stem and medulla oblongata. The gross findings were confirmed histologically. Typing of an E. coli is in progress.

QUEENSLAND - Roger Kelly.

From the ARI

Melioidosis: This infection is persistent in the Mundubbera area in some piggeries. Eight out of nine samples were positive from one group of abattoir submissions.

Oedema disease: Also common lately in the Mundubbera district. The whole range of the disease, including cerebral and generalised angiopathy, and stomach and mesenteric oedema, has been seen.

Tetanus: A severe outbreak (1200) was seen in 4-tooth sheep which had been drenched and tagged 3 weeks earlier with double-button tags. One affected animal was treated on a trial basis with 12000U tetanus antitoxin. Obvious clinical improvement was observed after 3½ hours, but relapse occurred overnight. As well as confining the diagnosis, this illustrated the cost of antitoxin treatment in a large outbreak.

Psittacosis: Monoclonal antibody is now being used in a direct immunofluorescence test to diagnose psittacosis. The disease is turning up frequently in wild-caught birds transported to aviaries from other states.

Vet School

Squamous cell carcinoma: An aged Hereford cow, which had her left eye out two years previously with cancer eye, developed signs of paraesthesia around the left side of the head (twitching and excessive licking). She bore a very heavy cattle-tick burden in a sharply demarcated area on the left side in the field of distribution of the facial and trigeminal nerves, and, at necropsy, was found to have squamous cell carcinoma which had grown back from the left orbit along the facial and trigeminal nerves. The temporal and masseter nuclei on that side showed obvious atrophy of denervation.

The interest in this case lay in the long course of the malignancy, in the unusual pattern of metastasis and clinical presentation, and in the effect on the distribution of the tick population. The latter was attributed to the probable warmth of the denervated area due to sympathetic paralysis, although failure to groom the anaesthetised area may also have played a part.