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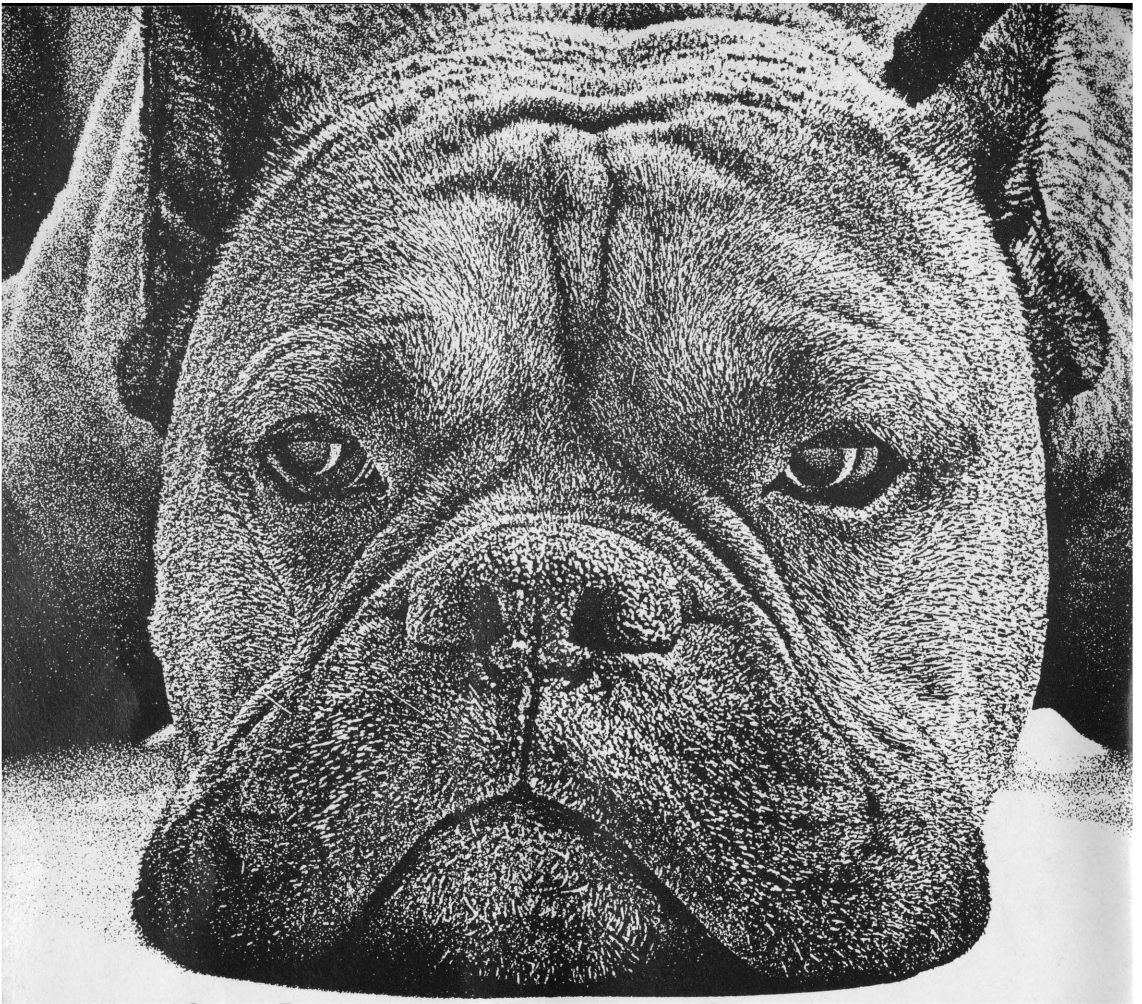
no 4 october

1976

a publication by the students of the faculty of veterinary science
'n publikasie deur die studente van die fakulteit veeartsenykunde

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EXPERTO CREDE

No 4 OCTOBER 1976.

INDEX

a case of feline infectious peritonitis	3
about soccer	6
die bloedbreinskans	8
o.p. wins squash league	15
the o.p. cultural club/kulturele klub	18
kroniese pioderma in 'n hond	19
rugby	22
the new veterinary student	24
o.p. spirit 1976	26
let sleeping students smile	28
i.v.s.a.	31

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EDITORIAL

"Experto Crede" is a solely student-published magazine relying on sponsorship by the pharmaceutical companies for its financial existence.

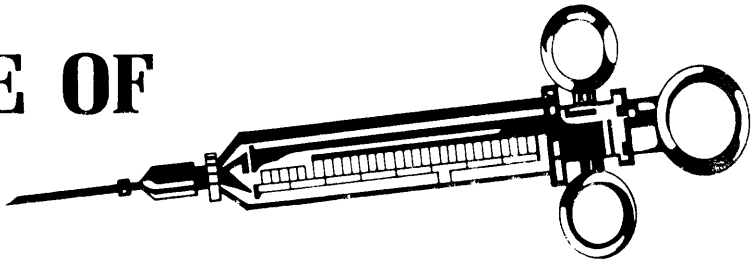
It was because of a lack of sponsorship that we were unable to produce an edition of "Experto Crede" in June of this year.

"Experto Crede" is supplied free of charge to all registered veterinarians and students of this faculty, but your support and encouragement is required if this magazine is to continue.



Expertrix Crede

A CASE OF FELINE



INFECTIOUS PERITONITIS

Class Case - A.B. King - B.V.Sc.5. - (1975)

SUBJECT:

A 7 1/2 month old female Siamese cat.

ANAMNESIS:

The cat was bred and raised in Pretoria and at no stage did it come into contact with any imported cats.

A private practitioner treated the cat first for pneumonia and a month later for enteritis. A fortnight after the last treatment the cat was presented showing severe ascites, first noted some 2 1/2 weeks previously; the practitioner referred the case to Onderstepoort.

CLINICAL FINDINGS:

When first examined the animal was alert and very lively. She remained like this for two days; then she became listless and apathetic and died five days after being admitted.

The animal was slightly emaciated (weight 2,5 kg), clinically anaemic but well hydrated when admitted. Weight-loss over the next five days was however rapid and she weighed only 2 kg when she died.

The abdomen was severely distended, diameter 37 cm. It was impossible to palpate any internal organs at this stage. By the fourth day the abdominal distension had decreased enough to allow palpation. Palpation of the abdomen failed to reveal any significant findings.

Respiratory sounds were "rough" but no râles or dyspnoea were noted.

Clinical examination of locomotory, digestive, urogenital and nervous systems revealed no abnormalities. The temperature was normal to sub-normal terminally. Radiographs failed to reveal anything significant other than marked ascites.

CLINICAL PATHOLOGY:

Ascitic Fluid: collected by paracentesis.
Appearance: a white cloudy exudate.

SG: 1,032
pH: 7,0
Protein: 5,6 gm %
R.C.C.: 200
W.C.C.: 4,600
Neut: 70%
Round: 30%

Five days later the fluid was again examined, now SG had increased to 1,040, protein to 7,4 gm % and W.C.C. to 12,200.

Blood: The anaemia observed clinically was confirmed (R.C.C. 4,05 normal 5 - 10 x 10⁶). A moderate leucocytosis was present (23 900 normal 5 - 19 000)

Enzymes: SGOT and SGPT were normal. LDH and HBDH were slightly elevated.

Electrophoresis:

1. **Serum:** There was a marked increase in the gamma globulins and the α_1 , α_3 , β_3 β_1 components. The hypergamma - globulinaemia can be attributed to an immune response and is considered to be a classical finding with FIP.

Hypoalbuminaemia can be explained by the fact that large amounts of albumin were lost into the ascitic fluid. The animal was also cachectic.

2. **Fluid:** The ascitic fluid was virtually identical to the serum. This is virtually a straightforward effusion of serum into the peritoneal cavity.

The Clinical Pathology of the ascitic fluid and blood with FIP is fairly typical and uniform.

Urinalysis: Failed to produce any significant results. However, in many cases of FIP kidney lesions are found and so kidney function must be carefully examined.

PATHOLOGY:

Macroscopic: (a) Condition was poor and somewhat emaciated. (b) Peritoneal cavity contained approx. 450 ml of dark straw coloured viscous fluid which clotted on exposure to air. (c) Numerous fibrin strands were present both free and adherent to the abdominal organs. (d) Dorsal region of the peritoneum showed a diffuse fibrinous peritonitis. (e) Liver showed numerous disseminated pin-head sub-capsular elevations. Similar lesions were seen in the serosa of small and large intestines. (f) No kidney or ocular lesions present.

Histopathology:

- a) Liver: focal areas of subcapsular necrosis with fibrin, neutrophils, lymphocytes and a few plasma cells present. A few small focal areas of degeneration were also present.
- b) Similar lesions were seen in sub-serosa of intestines involving also the muscle layers and the spleen.

DIAGNOSIS

In the early stages before ascites develops, diagnosis is very difficult, if not impossible. In the advanced stages diagnosis can be made on the following characteristics:-

- a) resistance to antibiotic therapy
- b) clinical symptoms
- c) clinical pathology & electrophoresis.

Finally, the pathology is typical and can confirm the diagnosis without doubt.

DIFFERENTIAL DIAGNOSIS.

Of prime consideration are conditions associated with fluid accumulation in the thorax and abdomen Tuberculosis, Neoplasms, Chylothorax and Chylousascites, Empyema, Congestive Heart Failure, Chlamydia, Bacterial peritonitis, Cirrhosis, Glomerulonephritis, and Toxoplasmosis.

TREATMENT:

FIP is stated to be refractory to treatment with antibiotics, corticosteroids and general supportive therapy. It proved to be so with this case.

DISCUSSION:

FIP is classified as one of the modern "emerging diseases". At the moment its incidence in South Africa is apparently low and sporadic. As a result a diagnosis is very often missed by practitioners. Fortunately the spread of FIP in Nature is slow with a low degree of infectivity.

* * * * *

ABOUT SOCCER:

Well O.P. did it again!

They won the Soccer League for the second time in 2 years. But it wasn't without sweat and pain (especially for the gluteus mucele).

It all started at the beginning of last year, when a few soccer fanatics decided to get together and form a "Social" team.

They found a few "challengers" such as the white and black staff, and other so called "social" team. It looked as if our soccer team was going to crumble. It was then that we heard from the university sport office that an internal soccer league was about to be organized. That was the opportunity they (the fanatics) were waiting for. With a little push from this side the league was eventually organized and the first soccer season for O.P. started.

The first season was a sucksess; O.P. won the cup without being beaten once. In the meantime, this league caused so much enthusiasm amongst the soccer players on the campus that at the beginning of this year the number of team was doubled from 9 to 18.

At O.P. with the 90 newcomers, 2 teams had to be entered. There was going to be competition:

Dagstudente with 1 berea players
L.O.; with 1 SAU player
DASUP; with 8 first team players, and 2 SAU players
O.P.; 11 O.P. students (aspirant vet).

On the second last day of the season, the league reached a climax when DASUP and O.P. had to meat for the decisif game of the year.

Both team had reached the top and were on the same level of point when the match started. In front of an eufhonic if not crazy crowd O.P. defeated DASUP 2 - 0 and so ensure themselve the leadership of the league and the cup for the second time.

Thanks supporters!!

Next year without doubt there will be more soccer players, and without doubt with a little effort, we will won the league again and be able to keep the trophy for ever!

(Editor: This article is printed without any attempt to correct spelling or grammer of the original manuscript, I promise.)



Back: R. Hassel, R. Paladin, C. Moore, N. Goldberg, W. Späth, B. Anderson, E. Albertyn.
Front: H. Rockebrand, G. Spiby, A. Erasmus, G. de Cort (Capt), M. Williams, G. Archbald.
Absent: W. Depke, P. Humphreys, J. Niland.

DIE BLOEDBREINSKANS

W.S. BOTHA
Dept. Patologie
Fakulteit Veeartsenykunde, U.P.

INLEIDING:

Dit is welbekend dat daar 'n verskansing tussen die bloed en die breinweefsel is wat uitruiling van stowwe beperk. Hierdie verskynsel word baie goed in pasiënte met geelsug waargeneem waar galpigmente alle weefsel geel verkleur behalwe die breinweefsel. Reeds so vroeg as 1882 het Ehrlich en later in 1913 Goldman tripaanblou binnears toegedien en geen verkleuring van brein of rugmurg verkry nie terwyl die res van die liggaamsweefsels verkleur (6) (7) (14). Toe die kleurstof in die serebrospinale vog toegedien is het al die breinweefsel blou verkleur maar verspreiding na die bloed het nie plaasgevind nie (14). Die breinweefsel is embriologies van **ektodermale** oorsprong en as dit onthou word dat die ektoderm die grootse skans, naamlik die vel, vorm wat verlies van liggaamsproteïene voorkom, is dit nie vreemd dat die brein wat 'n hoogs "opgevoede" gespesialiseerde "vel" is, ook 'n skans besit nie (8). Voedingstowwe bereik breinselle net soos in die geval van die vel slegs nadat dit deur die sitoplasma van 'n aangrensende sel (transellulêr) gegaan het. Geen limfspasies bestaan nie en hierdie transsellulêre vog samel aan om die serebrospinale vog te vorm (8).

MORFOLOGIESE ASPEKTE VAN DIE BLOEDBREINSKANS:

1. Die breinkapillêr

Die breinkapillêr is die enigste deel van die sirkulatoriese sisteem waar stofwisseling kan plaasvind en dus die eerste potensiele skans tussen bloed en brein (6).

Die endoteelselle van die breinkapillêr is 2 tot $5/4$ dik en die rande oorvleuel mekaar. Soos in fig 2 gesien kan word is daar **samesmelting** van die endoteelbasaalmembrane om 'n hegte aaneensluiting te vorm en geen intersellulêre spasie tussen endoteelselle kom voor nie (7) (14). Hierdie hegte aaneensluiting word slegs in die brein en retinale kapillêre endoteel aangetref (7) (12). Hierteenoor word in die vel 'n aaneenlopende endoteel gevind met wel 'n intersellulêre spasie tussen endoteelselle en gefenestreeerde kapillêre vate in die endoktriene kliere en dermvilli (7).

Met 'n elektronmikroskopiese studie het Reese en Karnovsky (12) bewys dat die breinkapillêre endoteel totaal **ondeurlaatbaar** is vir radysperoksidase (partikel-deursnit 4 mm) en dat pinositotiese oordraging nie in die breinkapillêre endoteel plaasvind nie. Hulle (12) stel dus voor dat die bloedbreinskans in die vaskulêre endoteel geleë is.

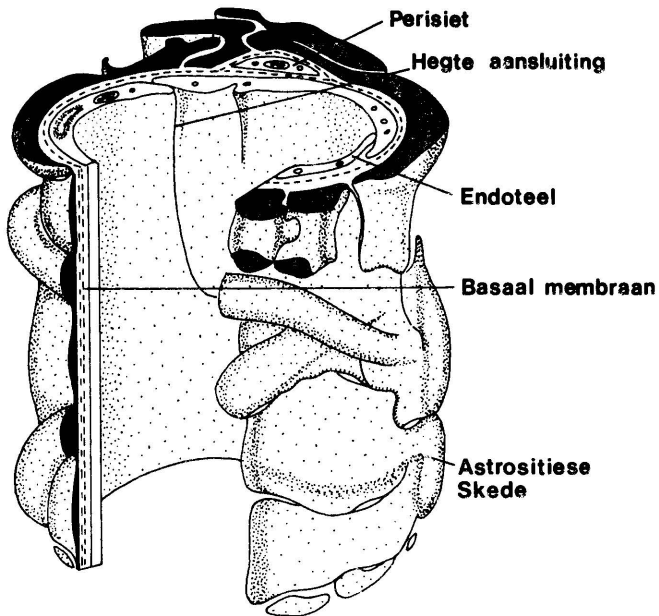


Fig 1 Skematiese voorstelling van 'n breinkapillêr omring deur 'n astrositiese skede (7)

Fig 2 Elektron mikrofoto van 'n breinkapillêr toon die hegte endoteel aansluitings.

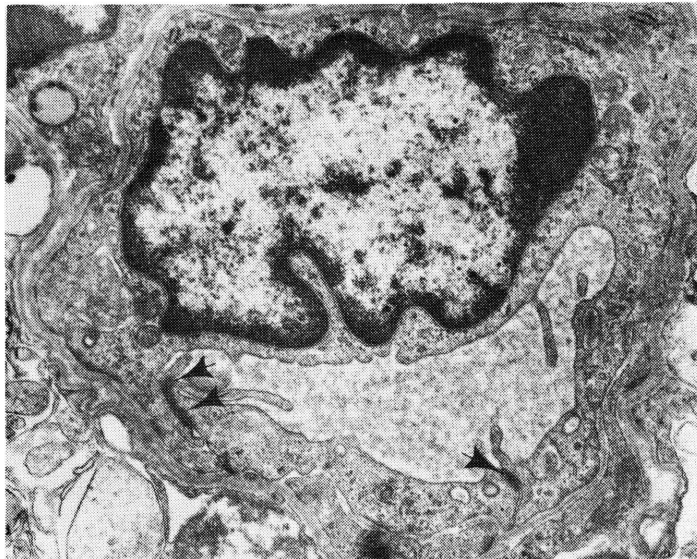
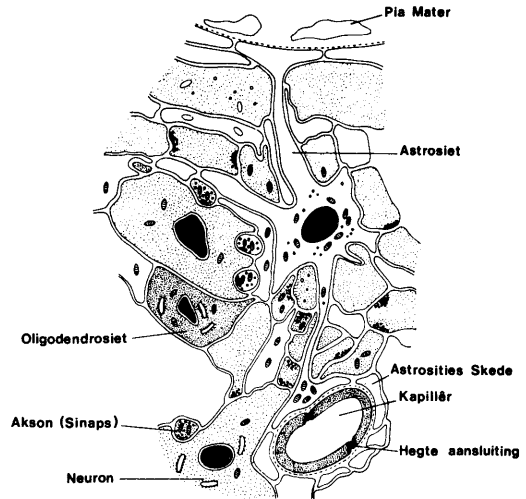


Fig 3 Skematiese voorstelling van die verskillende selle in die brein.
Die astrosiet vorm 'n astrositiese skede sowel as die eksterne bedekkingslaag van die brein.



2. Die neuroglia

Die neuroglia bestaan hoofsaaklik uit astrosiete en oligodendroglia van neuro-ektodermale oorsprong en mikroglia van mesodermale oorsprong. **Astrosiete** word verdeel in die protoplasmiese astrosiet van die witstof met tot 50 vertakkende uitlopers teenoor die fibreuse astrosiet met 'n relatief kleiner aantal uitlopers van die witstof (7).

Arteriole, venules en kapillêre vate van die brein het geen omringende adventitia nie maar 85% van die oppervlakte van hierdie vate word bedek deur astrositiese eindvoete en uitlopers (7) (8). (Fig 4) Die verdere 15% bedekking om die vate is hoofsaaklik deur die selliggame van astrosiete, oligodendroglia en mikroglia. Hierdie **astrositiese-skede** van kapillêre asook die noue verband van die astrosiete met die neurone aan die ander kant het die teorie laat ontstaan dat astrosiete 'n belangrike rol speel in die oordraging van voedingsstowwe na neurone en dus so 'n skans mag vorm (6) (8) (13). Lumsden verwys na hierdie selle as "wet nurses of the neuron" (8). 'n Verdere bewys van die rol van astrosiete vloei uit die werk van Torack et al (13) waar hy aantoon dat hierdie selle die hoofroete van intrasellulêre water transport in die senustelsel is.

Die astrositiese skede is nie slegs om die kapillêre nie maar omring ook die neurone, aksone, sinapse en vorm ook die eksterne bedekkingslaag van die brein (7).

Oligodendrosiete het 'n baie noue verband met neurone in die grysstof vandaar die naam perineurale satelliete en is ook verantwoordelik vir die mielinisasie van senuweesels in die witstof van die sentrale senuweestelsel (7) (14).

Die ekstrasellulêre spasie tussen die verskillende elemente van die neuroglia is 'n verbaasende konstante grootte van 20 nanometer en vorm 'n doolhof van spasies en kanale tussen die selle (6) (8).

Brightman (3) bewys dat merkerstowwe langs hierdie ekstrasellulêre spasies kan beweeg en Gardner (8) beweer dat die elektronegatiewe ladings van selmembrane verantwoordelik is vir die konstante spasie. Dobbing (6) wys egter daarop dat die totale ekstrasellulêre spasie 'n baie klein deel (3,5 tot 5%) van die breinvolume uitmaak en dat hierdie spasies direk verbind is met die ventrikels en kanale waarin die serebrospinale vog aangetrof word.



Fig 4 'n Astroset met uitloper en eindvoet op die kapillêr. Gekleur met Cajals-goud-sublimaat kleuring.

3. Die choroïdepleksus en serebrospinale vog

Net soos daar 'n verskansing tussen die bloed en breinweefsel bestaan is daar ook 'n bloed-serebrospinale vog verskansing. Hierdie skans is egter nie geleë in die endoteel van die kapillêre vate nie aangesien die kapillêre vate 'n gefenestreeerde endoteel besit en daarom normale interstisiële vog vorm (4) (8). (Fig 5) Die interstisiële vog word dan gefiltreer deur die heg-aaneengesluite choroïede epiteel wat 'n soortgelyke struktuur as die selle van die proksimale kronkelbuis van die niere toon, om serebrospinale vog te vorm (7) (14). Hierdie metode van serebrospinale vogvorming is relatief vinnig omdat daar 'n baie laer kolloïdale osmotiese gradiënt in die reeds gevormde interstisiële vog bestaan

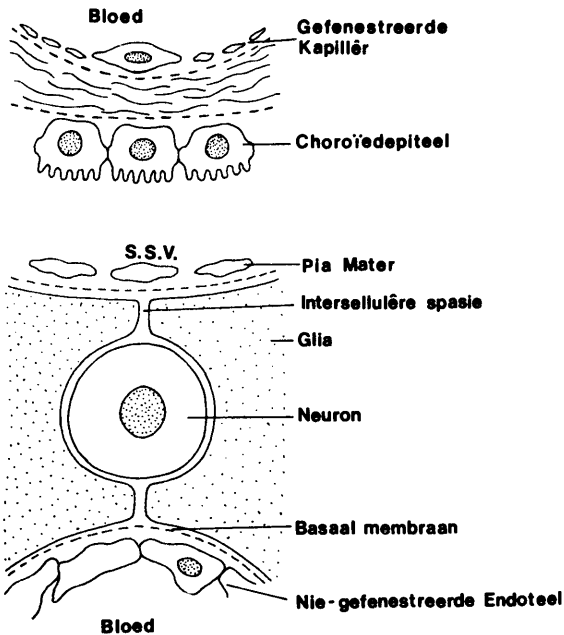


Fig 5 Diagram wat die bloedbreinverskansing aantoon met die choroïdpleksus bo en breinweefsel onder.

Hierdie metode van serebrospinale vogvorming is relatief vinnig omdat daar 'n baie laer kolloïdale osmotiese gradiënt in die reeds gevormde interstisiële vog bestaan (8). Die grootste gedeelte (70^o/o) van serebrospinale vog word op die manier gevorm terwyl die res deur diffusie vanaf die ekstrasellulêre vog vorm.

FISIOLOGIESE ASPEKTE VAN DIE BLOEDBREINSKANS:

Behalwe bogenoemde anatomiese aspekte van die bloedbreinskans bestaan daar ook fisiologiese meganismes om 'n homeostase van ekstra-sellulêre vog van die brein te verseker.

Glukose is die primêre bron van energie vir breinweefsel en dit is dus te wagte dat 'n gefasiliteerde diffusiemeganisme wat versadigbaar is by die normale bloedwaardes van 80 -100 mg o/o bestaan. Insulin word nie benodig vir die absorpsie van glukose uit die bloed in breinweefsel nie (10). Fruktose kan wel deur die breinweefsel gemetaboliseer word in toestand van hipoglisemie maar dit word beperk deur die relatief swak penetrasie deur die verskansing (10).

Oldendorf (9) het gevind dat minder as 5^o/o van die nie-essensiële aminosure, die bloedbreinskans oorgaan terwyl tot 50^o/o van die essensiële aminosure uit die bloed onttrek word met 'n enkel vloeï van bloed deur die breinbloedvate. Hy het 'n aktiewe transport van aminosure bewys wat versadigbaar, steriospesifiek en kompetatief geïnhibeer kan word (9).

Hoewel daar 'n vinnige ekwilibrium van water tussen bloed en breinweefsel bestaan (2) is daar 'n aansienlike vertraging van stowwe soos natrium, jodium, sukrose en ander divalente katione tot in die ekstrasellulêre vog van die brein (5).

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GEVOLGTREKKING:

Daar bestaan geen twyfel dat daar 'n verskansing tussen bloed en breinweefsel bestaan nie maar die vraag mag wel ontstaan waarom so 'n verskansing voorkom. Die volgende redes is aangevoer:

1. Die bloedbreinskans verseker die homeostase van die brein deur die presiesheid van die meganismes waardeur bepaalde ione, hormone en ander stowwe toegang verkry (4) (7)
2. Die verskansing voorkom proteïen lekkasie na die ekstrasellulêre vog en geassosieerde edeem (4) (8)
3. Waar die konsentrasie van 'n bepaalde metaboliet op 'n gegewe plek te hoog styg sal passiewe diffuse na die serebrospinale vog plaasvind wat dit wegdreiner. Die vorming en sirkulasie van ekstrasellulêre vog en serebrospinale vog verseker dus verdere homeostase van breinweefsel (4) (8)
4. Die ingang van vreemde stowwe insluitende sekere terapeutiese middels word beperk. Vetoplosbare middels (soos narkosemiddels, morfien, hiosien, ens.) het 'n relatief vinniger toegang tot die brein terwyl hoogs geïoniseerde stowwe beswaarlik toegang het (7) (14). Indien 'n middel intratekaal toegedien word versprei dit vinnig vanaf die serebrospinale vog na die ekstrasellulêre vog van die brein (14).

Verskeie patologiese toestande kan die permeabiliteit van die bloedbreinskans verander. So het Pienaar et al (11) byvoorbeeld gevind dat met hartwater 'n intrasellulêre edeem van die astrosiete baie vroeg ontwikkel a.g.v. 'n versteurde bloedbreinskans. Die sitoplasma vermeerder in volume en vorm intrasellulêre proteïen globules. Indien die astrosiete breek word hierdie globules vry in die ekstrasellulêre spasies en Virchow-Robin spasies aangetref (11). Met neoplastiese toestande van die brein, veral metastatiese gewasse waar 'n abnormale vaskulêre endoteel aangetref word ontwikkel 'n lokale edeem om die gewasse. Van hierdie verskynsel word diagnosties gebruik gemaak deur radioaktiewe stowwe binnears toe te dien en dan die radioaktiwiteit oor die skedel te bepaal (1). Algemene of lokale serebrale edeem is dus slegs 'n versteuring van die normale verskansing wat die brein besit.

DANKBETUIGING:

Ek wil graag die Scottish Medical Journal bedank vir die reg van publikasie van Figure 1, 3 en 5, Dr J.G. Pienaar en Kapt. A.F. van Dellen vir Fig 2 en prof. W.H. Gerneke vir Fig 4, asook mej Seegers en mnr Meyer vir die reproduksie en fotografie van die diagramme.

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O.P. WINS SQUASH LEAGUE

1976 certainly proved to be one of great success to the O.P. Squash side.

The annual Swaziland tour early in the year generated a great team spirit which persisted through the year. Contrary to tradition, the Spa, Cuddle-puddle, blue maries and beer, took a back-seat to honest hard squash. Dr. Barry Spencer the ever-mocking, ever-fit, and ever-hospitable, provided the tourists with head-aches on the court and belly-laugh off.

Then came the first inter-hostel league. The O.P. team consisting of "Flop" Kretzman, Anton van Vollenhoven, Gavin Archibald, Peter Humphries, Neville Goldberg and Ronnie Paladin, complained of lack of competition and easily won the league with 74 points out of a possible 78! It was not unusual to arrive at the courts and see the O.P. players taking each other on before, during and after their matches, and then being roped in to play for Tuks teams when in need.

Intermedics was a 2 - 3 disaster, but then you can't win them all. Finally a word of thanks to the Wonderboom Army base for the use of their courts, and a call on O.P. students (and staff) not to make improper use of this favour.

Thank you also to all the social players who are back-bone of any club, and to the staff who risked two matches against the students.

Editors Note: The students can't remember who won the staff-student matches!

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THE O.P. CULTURAL CLUB/KULTURELE KLUB.

On the first Friday night of February, in the black late hours, the O.P.C.C./K.K. was founded by Dr. Eddie Genis (the hostel warden) and Graham Louw (a final year student), plus three empty bottles of Dry Red. The reason for the founding of the Club was the drastic requirements for a fresh cultural spirit to breeze into the barbaric hallitosis of O.P. Majority vote that night led to Dr. Genis being voted the liason officer between students and lecturers, and the chief organiser of discounts for all functions; and Graham Louw being voted chairman of the club (he was already latent representative of Forum at U.P.).

Thereupon followed the choosing of two committees:

The student representatives were, led by Graham Louw

Jane Pistorius (V year) - secretary
Brendon Pollard (IV year)
Gabby de Cort (III year)
Laura Woodward (II year) - treasurer

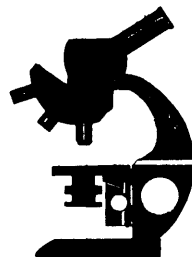
The staff members were:

Prof. J. le Roux - chairman
Dr. M. Smuts - secretary
Dr. E. Genis - organiser of discounts
Christine Seegers - treasurer

From that moment, a wild but highly organised rush of events occurred, clearing out the ancient culturally stagnant atmosphere of O.P., and paving the way for greater events. A series of plays, operas, ballets and exhibitions were well attended and were roaring successes. Laura Woodward and Prof. le Roux boosted the finances to opulent levels. Students and staff breathlessly waited for each new event.

Now the year is over, and an exhausted committee of students and staff will rest for some peaceful weeks of examinations, before girding their lions for 1977, hopefully (and very regrettably) without the two final year students. The Club has been a great success, and all concerned feel proud that they have created a new tradition at O.P. in an attempt to give each person here a wider and far better education.

KRONIESE PIODERMA IN 'N HOND



Klasgeval - E.J. Dalton B.V.Sc.5 (1975)

ANAMNESIS:

'n Bruin en wit bull terrier teef van vyf jaar oud is in Mei 1975 opgeneem met 'n geskiedenis van kroniese puisie-agtige dermatitis. Sy is reeds sedert Augustus 1974 onsuksesvol me Betadine baddens en antibiotika behandel (nadat 'n antibiogram gedoen is). Hemolitiese **Staphylococcus aureus** is geïsoleer.

Met 'n **KLINIESE ONDERSOEK** is gevind dat altwee agterpote vanaf die kniegewrig tot die tone haarloos is en 'n helder gelerige eksudaat uit die vel uitsypel. Die pote was erg verdik en warm. Die Linker poot was erger aangetas as die regter poot.

Beide die popliteale limfknope was baie vergroot en hard.

Urine ondersoek het gewys dat die urine donker was, met 'n hoë pH (6,5 - 7); heelwat sediment, gietsels, kristalle en bakterieë. Dit kon as gevolg van 'n sistitis sekondêr tot urine retensie gewees het (House-trained).

VOORLOPIGE DIAGNOSE:

1. primêre kroniese pioderma a.g.v. 'n **Staphylococcus** besmetting
2. primêre swambesmetting wat sekondêr gekompliseer is deur **Staphylococcus**
3. primêre **Demodex canis** met sekondêre **Staphylococcus** is onwaarskynlik aangesien die letsels hoofsaaklik op die agterbene is, maar is tog ondersoek.

SPESIALE ONDERSOEKE:

Monsters van die eksudaat is uitgeplaat en **Staph. aureus** is geïsoleer. Dit skakel nie die moontlikheid van fungi uit nie weens moontlike oorgroeiing, en die behandeling is dus ook daarop gemik.

'n **Antibiogram** het die volgende getoon:

Chloramphenicol 3+; Nitrofurantoin 3+; Tetrasikliene 3+; Erythromycin 3+; Cloxacillin 3+

Velskraapsels was negatief vir **Demodex canis**.

Hematologie het die volgende veranderings gewys: verhoogde witseltelling (13300: normaal 6000 - 11000) en verhoogde α_3 , β_2 , en α globuline wat alles dui op 'n langstaande infeksie.

VETS VET*

with

CYANAMID

*vét, 2. v.t. Examine or treat (beast);
(fig.) check & correct. [abbr.]
(Concise Oxford Dictionary)

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BEHANDELING:

Die probleem met behandeling van hierdie geval was sy kroniese aard en die onvermoë van die antibiotika om deur die bindweefsel te dring. Dit is dus besluit om 'n outogene entstof te laat vervaardig. Dit neem egter 'n baie lang tyd en behandeling is dus daarop gemik om die letsels te bekamp en, indien moontlik, te verbeter.

In die begin is 10 ml Chloramphenicol subkutaan twee maal per dag toegedien; die letsels is elke dag geweek in 'n lou Betadine oplossing, afgedroog en Tinktuur van Chloramphenicol topikaal aangewend. Vier dae later is infrarooi bestraling begin om die bloedtoevoer te verhoog en Betnovate-N topikaal gebruik om jeuk te verminder. 'n Geringe verbetering was merkbaar maar dit het weer agteruit gegaan.

Die moontlikheid van 'n primêre swambesmetting is oorweeg en die hond is met 'n kursus Griseofulvin behandel.

Elf dae later na die aanvang van die Chloramphenicol behandeling toe daar nog geen verbetering getoon is nie, is die chloramphenicol en Betrovate N gestaak en Chloramex gemeng met DMSO drie keer per dag topikaal aangewend. Dit het nie juis veel verbeter nie, en teen hierdie tyd was die antibiogram resultate beskikbaar. Tetrasikliene is toe per os probeer met weer verbetering en agteruitgang.

Intussen is besluit om die sistitis met mandelamine te behandel, en dit het goed gereageer.

Toe is dit besluit om die DMSO met Liquamycin te meng vir topikale aanwending. Die letsels het toe definitief begin verbeter, maar soortgelyke letsels het op die dorsum van die neus verskyn.

Intussen het daar 'n nuwe middel, nl. Wobe-Mugos verskyn (nog in die stadium van toetsing) wat moontlik sou help om die bindweefselvorming teen te werk en af te breek. Dit is vir agt dae toegedien maar toe was die voorraad gedaan en niks meer beskikbaar nie.

Die beenletsels het heeltemal genees maar die neusdorsum het aanvanklik verbeter en later weer verswak. Die DMSO liquamycin is toe gestaak en die neus topikaal met Povidone jodium, toe Disadine sproei en later Lugols Jodium behandel, terwyl gewag is op die entstof.

Toe die entstof ontvang is, is die eerste dosis toegedien en die pasient ontslaan. Dit het 'n klein abses veroorsaak maar die letsels het heelwat verbeter, en geen nuwe letsels het verskyn nie. Die tweede dosis is twee weke later toegedien, sonder absesvorming. Dit is egter nog 'n bietjie te gou om met sekerheid te sê of volkome genesing die uiteinde sal wees.

FINALE DIAGNOSE:

'n Primêre Kroniese pioderma a.g.v. **Staphylococcus aureus**.

ONDERSTEPSPOORT 1e RUGBYSPAN Vs WITS II

Hoofvoorwedstryd vir wedstryd tussen Wits I en Raikes Uitnodigingspan.

Die tradisionele wedstryd tussen Onderstepoort en Wits het vanjaar plaasgevind op 10 Maart in Johannesburg.

Na die swak vertoning van die vorige jaar was Wits die gunsteling om die wedstryd te wen. Nadat Onderstepoort nog die vorige week teen Brits verloor het, het die ding nie te rooskleurig vir hulle gelyk nie.

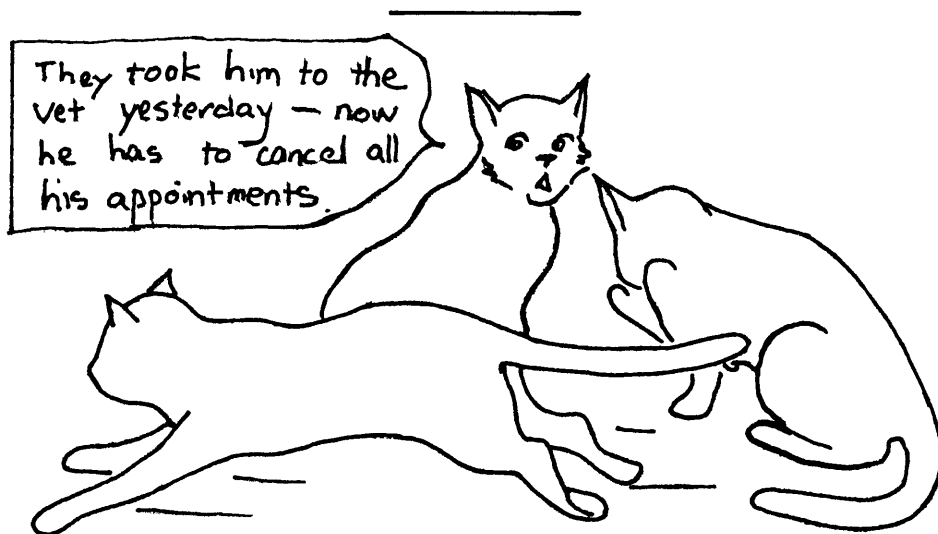
Vanaf die afskop was dit duidelik dat die wedstryd weer aan sy tradisie, nl. vinnige hardloop rugby, gaan voldoen. Wits met sy ligte voorspelers het die spel aanvanklik oorheers en was eerste om punte aan te teken - 'n strafdoel (0-3).

Met aanmoediging van hul toeskouers en afrigter (Dr. Daan Goosen), het O.P. stadig teruggekom. Net voor rustyd het Johann v.d. Merwe 'n pragtdrie gedruk, wat deur Org Venter vervyf is (6-3). Dit was ook die rustyd telling.

Die begin van die tweede helfte was soos die eerste met Wits wat aanval en O.P. se agterlyn wat besonders goed verdedig. Toe was dit O.P. wat aangeval het om lynstaan en skrum te oorheers.

Org Venter het met twee strafskoppe geslaag (12-6). Kort voor die eind-fluitjie geblaas het is Org oor vir 'n drie na Johann v.d. Merwe aanvanklik die beweging begin het. Org het sy eie drie vervyf om die eindtelling 18-3 te maak.

Na die hoofwedstryd is die O.P. span onthaal deur Wits Rugby Klub - 'n genotvolle einde na 'n geskiedkundige O.P. oorwinning!





Agter: D. Midgely, P. Ward, W. Delport, J. van Niekerk, A. Oosthuizen, M. Wessels, C. Smith, C. Moore, B. Stevens, P. Kretzmann.

Voor: K. McLean, O. Venter, B. Morkel (kapt). G. Theron, I. van Niekerk, J. van der Merwe.

THE NEW VETERINARY STUDENT.

This year saw the birth of a new generation of Veterinary Science students. Ninety fledglings were introduced to the revolutionized mill. Not only was theirs a double intake but they are also on the first rung of the new 5 and a half year course ending in the awarding of that coveted degree.

Such a mass of students must have had an impact on O.P. - the lecturers and their fellow students. So we invited a representative of each stage of the "process" to comment on how he or she reacted to the ninety second-year students.

B.V. Sc. II

For the first half of the year the students "condemned" to sit in one of the last 3 rows of benches had, to say the least, a rather frustrating time, being unable to hear more than a fraction of most lectures and nor for that matter, make out anything written on the board or demonstrated on the wall charts.

The situation was slightly improved with the installation of a P.A. system but the charts remain an interesting conglomeration of meaningless colours. If this can be taken as any indication of what is to come in subjects requiring visual study then our apprehension is wholly justified.

An aspect which is unfortunately present in our group, and which might well become a serious disunifying factor, is the unwarranted academic and social selfishness practiced by some students. Hopefully this phenomenon is merely due to the normal feeling of insecurity and uncertainty which one feels in 2nd year, which in our case has been amplified by the large number of students, and will subsequently disappear in later years.

Nevertheless we have shown on occasions that the majority of students have been "infected" with the O.P. spirit and promise to maintain the student unity which has been, to present, the bastion of O.P.

B.V. Sc III

The first batch of 90 students must have meant a huge adaptation to both lecturer and senior student. But on the whole, I don't think that the 90 in second year have had any drastic effect on student life at O.P.

During the couple of welcoming days at the beginning of the year, it took 20 minutes to walk down the row of second years, instead of the 5 minutes needed in previous years!

As far as sport goes, one would have expected this area to be dominated by the influx, but this was not the case, any more than in previous years.

To me, the most noticeable change was a slight lack of class spirit amongst the 90, which may be attributed to their large numbers. As usual in the class, there were those few individuals who took it upon themselves to rectify the matter!

I think that the real change at O.P. will only come about in future years, when each class will have 90 students. But I trust O.P. tradition will be carried on.

B.V. Sc. IV

Die 4e jaar klas voel dat die besluit om negentig 2e jaar studente op Onderstepoort toe te laat 'n ondeurdagte besluit was om die volgende redes:

1. Dit moeilik sal wees om die studente met die bestaande fasiliteite en personeel prakties te onderrig.
2. Dit is selfs vir vyf en veertig studente moeilik om praktiese demonstrasies te volg.
3. Van die veeartse in die Staatsdiens en privaat praktyk is van die mening dat werksgeleenthede nie die opleiding van negentig studente regverdig nie.
4. Die opleiding van sestig studente vir 'n proefperiode sou beslis meer regverdig teenoor die studente gewees het. Ons hoop dat die 2e jaar studente des nieteenstaande sal moedhou.

B.V. Sc. V

Can you imagine peering over 89 peering heads at a green-draped table trying to follow a lentectomy, or standing in a queue to be 50th or 60th or 90th to peep through a speculum at a scar-studded cervix or imperforate hymen; or elbowing through the crushing crowd to try & feel that splint before the restless horse takes off altogether? I can. I have tried just that with 45 (or nearer 22 since half have already found they see nothing on such occasions) and often given up in helpless desperation.

But they have 5 and a half years for just that reason!

All the more do I pity them, and I'm all the more thankful I will never be joining them.

en finaal, 'n dosent:

Die inname van 90 studente het geen afbreuk aan die normale gang van die onderrig geënde nie. Dit is egter gebiedend noodsaaklik dat genoegsaam dosente in die praktiese klasse beskikbaar moet wees om hulp en leiding te gee. Aanvanklik is gemeen dat verdubbeling van demonstrasie materiaal voldoende sou wees, maar dit was 'n vergissing. Demonstrasie materiaal moes verdriedubbel word. Die groter lesingsale het die effektiewe gebruik van muurkaarte daar prakties uitgeskakel. Aanpassings moes ook met swartbordskrif gemaak word. Die vrees dat persoonlike kontak met studente verlore sou gaan, was ongegrond. Afhangende van die aard van die praktika, kan persoonlike kontak steeds op 'n bevredigende vlak gehandhaaf word. Elke studiejaar het sy eie karakter en dit sou dwaas wees om vergelykings te tref. Die huidige groep in die tweede studiejaar het beslis baie potensiaal. Daar heers 'n goeie gees van verantwoordelikheid en welwillendheid en dis 'n plesier om met hulle te werk. Die smart en die skok van aanvanklike toetsresultate is grotendeels getemper en hulle is nou ingestel op hulle Via dolorosa. Bon Voyage!

O.P. Spirit, 1976

Dr. Eddie Genis.

Met die aanstelling as nuwe koshuishoof aan die begin van die jaar was my laaste gedagte om 'n revolusie te veroorsaak, maar die uitgangspunt was om trou aan die tradisie voort te bou op jare se werk aan die "good - old O.P." - gees.

Ons kyk sover suksesvol terug op 1976 en stel vas dat a.g.v. 'n gesamentlike poging van alles en almal wat O.P. is, ons almal geslaag het om die tradisie se teuels styf te hou!

O.P. is the "home" of the South African veterinarian and therefore his privilege to have a very strong feeling for O.P. which creates this wonderful spirit; but we must then be good examples and proud diplomats of this good spirit at all times.

The O.P. spirit must be balanced and does not mean pride of a destructive nature, against property and establishment, or the sole object to abuse the good human intentions of old Bacchus. To study at O.P. always was and is particularly now a tremendous stress. This should be balanced by participating in something constructive, like sport or cultural events. Just to go wild also means to be unbalanced, but a good party at its time can provide balance. An intelligent person with intelligent wit is much more appreciated at a good party than a vandal who tries to draw attention by means of various barbaric acts. The fundamental principle for living together peacefully is perhaps the genuine respect for views, way of life, religion, politics and origin. Rules and regulations (in the case of O.P., determined by U.P.) has the sole objective of facilitating sound living together of a "multiple - orientated population" as we have at O.P. In this regard, we were also successful this year. Another record can be noted: the lowest account in years from U.P. technical department for repairs!

With great success, O.P. spirit contributed towards various achievements on the sportsfield. O.P. can also report an historical achievement for 1976: on O.P. Cultural Club was founded, and what is more, it has functioned with great success!

'n Suksesvolle konsert was by die koshuis gehou, met uitstekende kunstenaars van hoë gehalte, sowel as lokale talent met spesiale verwysing na 'n „O.P.-ensemble" (sang-groep) wat gestig is. Blokbespreekings was gereël na operas, ballet, simfoniekonserte, musiekaande en kunsuitstallings met meer as 100 sitplekke per aand. I am glad to report that this sound, good co-operative spirit has been defended and represented at all levels and functions during 1976.



Dr. Eddie Genis encouraging "local talent"



LET SLEEPING STUDENTS SMILE.

The best of the "Phantom Rhymer" - a mysterious poet in B.V.Sc. II



A CASE OF EEN-EN-'N-HALFTALIGHEID

I am your Biochem lecturer, "worthy" of respect
I am your Biochem man, I do a goeie job
We don't have demonstrations, we don't dissect;
I just talk to a loudly hissing mob.

You'll find my English quite delightful
But (need I say it?) my Afrikaans simply frightful!

My Angliscisms are horrific
My taalgebruik is up the pole
But my accent is terrific
Though strange sounds issue from my oral hole.

Solfent in plaas van oplosmiddel
While my class sit there en duime twiddle

I never say stof - always substans
And densiteit has never seen digtheid
But my class they understand - almal lekker mans
I work strictly under the tweektalige beleid

But oh, for two languages I'd give a golden scarf
Instead of having to use just one and a half!





from the **BOOK OF COMMON ANATOMY**:

We have erred and strayed from --'s ways like lost ovine.
 We have followed too much the devices and desires of our own hearts.
 We have offended against the anatomical laws.
 We have left unswotted those things which we ought to have swotted; And we have
 swotted those things which we ought not to have swotted;
 And there are no facts in us.

Woe are we for we are undone.

Professor, Professor what Biteth Thou?

Professor, professor, tell us now,
 What is it that irketh thou?
 Professor's in a rotten mood
 his temperament's no bloody good.
 "Concentrate, there's a lot to swot!!!"
 Did you hear that
 You lazy lot?
 One brain is rent to bits and pieces
 if it'd been a face
 it would be some kind of -'schizes
 draw these charts
 look at that dissection
 and don't touch that brain
 it might cause infection
 don't take down notes
 don't try it now
 Professor, professor, what biteth thou?



Once upon a PLAASWERF:

Now a plaasgebou has a kalwerhok.
 and you vang a perd met a lang big stok
 now the stal is built met hout en planke
 and you make beeste vet on staalvoerbanke
 now the skuur se dak is very hoog
 and the drukgang kuns met 'n sirkelboog
 now from die floor tot teen die bank
 is it more or less 76,4935 cm lank
 now a pig's en die bees and horses en a skaap
 and all of this makes ons lekker slaap.



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INTERNATIONAL VETERINARY STUDENTS ASSOCIATION XXVIII TH IVSA CONGRESS PARMA - ITALY.

Hylton Lee - IVSA Representative 1975-76.

I have recently returned from Italy having attended the above congress as representative from South Africa. Delegates from the following countries were present:

Austria
Belgium
Denmark
England
Finland
France
Ireland
Netherlands

Norway
Poland
Scotland
South Africa
Sweden
Switzerland
West Germany
Yugoslavia

Member countries absent; Sudan, Spain.
Corresponding members; U.S.A., Canada.



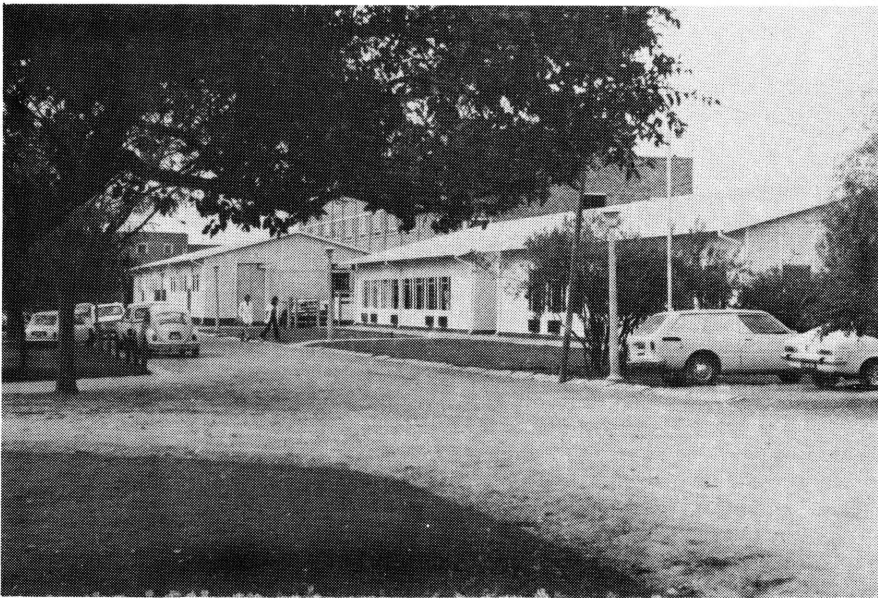
The programme of the Congress consisted of three general assemblies (concerning mainly IVSA business), discussion groups (discussing topics such as student exchange to different countries, possibilities for qualified veterinarians in these countries, and aid to Third World Countries), a tour around the Parma Veterinary Faculty and toursto nearby places of interest (Zooprofilattico - Sperimentale Institute at Brescia and several horse studs), and lectures on various topics of interest (notably rabies, which is at present top of the "Hit Parade" in Europe). Last, but by no means the least, an intensive social programme was arranged for us during the evenings, which resulted in most of us suffering from chronic fatigue and insomnia, but non-the-less developed a close comradeship amongst us all, which broke down all international barriers.

Unfortunately, due to South Africa's relatively isolated geographical position it is difficult for us to participate fully in IVSA, but we have been fairly well represented at the Congress in the past. There are two Congresses every year, to which South Africa usually sends a delegate in December, and if finances allow, one in August as well. However, we do have several students coming out of South Africa to see practice. Recently the numbers have been increasing, but the cost of flying out to our country is still a big deterring factor. We unfortunately send very few students overseas on exchange, but hopefully the members will increase in the future. One gets offered good opportunities overseas if you work through IVSA. Students may see practice in any of the member countries as listed or work in the clinics in some of the faculties. Accomodation is either free with a veterinarian or at a low fee in a boarding establishment. All students at O.P. are members of IVSA, and one remains a member for two years after qualifying.

Under the constitution, the aims and objectives of IVSA are as below;

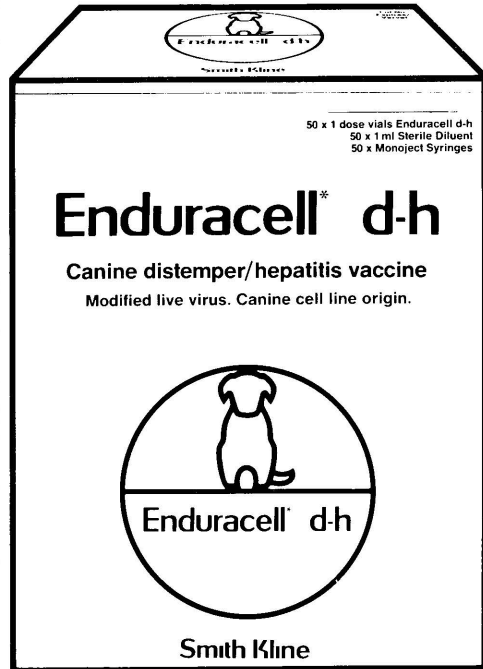
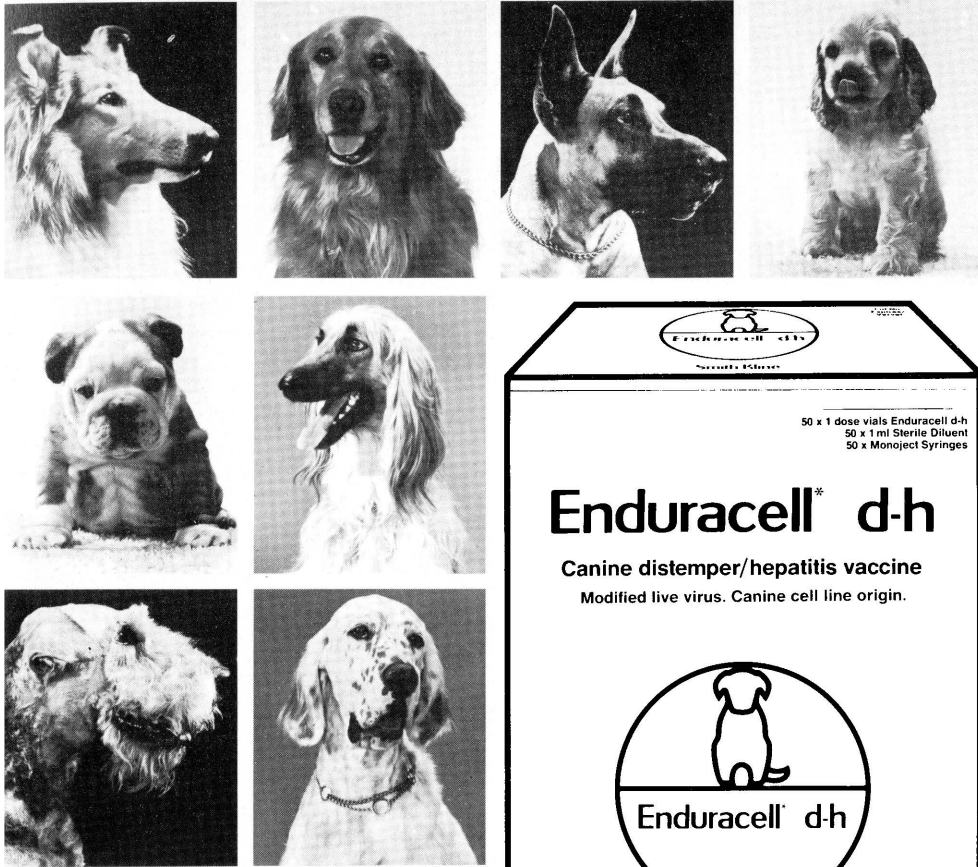
1. To promote International contact and Co-operation between Veterinary students.
2. To represent students on an international basis.
3. To organize international Congresses for Veterinary students.
4. To promote the exchange of Veterinary Students between different countries.
5. To establish and encourage International Programmes which will stimulate the interest of Veterinary students in the advancement of the science and art of Veterinary Medicine.
6. To collect all information concerning:
 - a. studies;
 - b. profession;
 - c. the possibility of working in a foreign country.

May I finally add that South Africans are highly thought of in Europe and our course here at Onderstepoort compares very favourably to those given by European faculties. I trust we will retain our good reputation, and what better way to do so, other than through IVSA!



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**INSLUITENDE ALLE
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 STAMME**



- Die hedendaagse antwoord teen weerstand by bosluise
- Dit is 'n diamidied en nie 'n organofosfaat, organochloor, arseen of karbamaatdip nie
- Dip of bespuit beeste om bosluise te verdryf en te dood — die "groot voorwaartse sprong"
- Gedeeltelike sistemiese effek oorbrug swak benatting en verskaf 'n afwerende effek en met weeklikse behandelings sal langer nawerkende beskerming verkry word
- Dit is veilig vir al die diere in enige weersomstandighede
- 'n Bosluisdoder wat geen besoedelingsprobleme skep nie — dit is biologies vinnig afbreekbaar en onskadelik
- 'n Uitstekende dipmiddel met geen stropingsprobleme in 'n dipbak — alle diere word teen die korrekte dipmengselsterkte te gedip — geen dipmonsters hoef geneem en getoets te word nie. Hoeveelhede van dipmengsel in dipbakke hoef nie bereken te word nie. Maatstok onnodig. Geen bekommernis oor oorstromende dipbakke.

* VV beteken 'Volledige Verplasing', 'n algehele nuwe Coopers konsep in dipprosedure wat dipbakbestuur vereenvoudig.



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