

SUMMARY OF WORKS AND REPORTS OF THE PUBLICATION OF "INSTITUTO DE PATOLOGIA TROPICAL DA U.F.G." — BRAZIL

Second Part

Titles — 61 to 136

1966 to 1981

61. — Association of sulfomethoxine and pyrimethamine administered intramuscularly for treatment of malaria caused by *Plasmodium falciparum*.

Joaquim Caetano de Almeida Netto and W. M. Pitaluga Vasconcelos.
Rev. Soc. Bras. Med. Trop. 6(6): 334, 1972.

RO 6-4793/9 was used in 19 cases of malaria due to *P. falciparum*. The therapeutic results was evaluated by means of clinical and parasitic control. The patients were hospitalized for 30 days.

In an initial group of 10 patients with mild form of the disease and parasitemia lower than 50 thousand trophozoits/mm³ a single ampul was used intramuscularly. The asexuated forms disappeared from peripheral blood between the 2nd and 4th days of control in 9 cases; one case did not became negative although marked reduction of parasitemia was noticed. In one case recrudescence of parasitemia was observed on the 28th control day.

To 9 patients all presenting initial parasitemia equal or over 50 thousand trophozoits/mm³, some of them presenting a severe clinical form of the disease, we administered 1 ampul daily for 2 days, intramuscularly. 8 of these cases became negative within a period varying between 2 to 5 days. No recrudescence was noticed during the control period of 30 days. In this group, one patient who had been admitted with acute renal insufficiency died on the 3rd day of hospitalization although his parasitemia had fallen over 90%.

No side effects were observed.

RO 6-4793/9 is a therapeutic assay product furnished by ROCHE. It contains 200 mg of Sulfomethoxine + 5 mg of Pyrimethamine per ampul.

62. — Toxoplasmosis — Finding of "*Toxoplasma gondii*" in peripheral blood.

W. M. Pitaluga Vasconcelos, Roberto R. Daher and Raquel Lopes de Oliveira.
Rev. Soc. Bras. Med. Trop. 6(6): Nov./Dec., 1972.

A male white patient, married born and living at Catalão-Goiás was hospitalized intense headache and anemia. Physical examination revealed paleness of the skin and mucous membranes and edema of the legs. Laboratory investigations showed the presence of *Toxoplasma gondii* in blood smears. The Sabin-Feldman reaction in blood and spinal fluid gave negative results as well as inoculation in guinea – pigs.

63. – Skin sensitivity to histoplasmin in the rural zone of Brasilia – 1968.

Sydney Schmidt, Onofre P. Machado and Grace Helena D. Ceva.
Rev. Divisão Nac. Tuberculose, 6(61): 88-90, 1972.

The rate of infection in 11 localities of the rural zone of Brasilia was 22,27% in 826 tests. Attention is called to the possibility of occurrence of other microepidemics of histoplasmosis such as one which occurred in 1967.

64. – Value of serum enzyme determinations for the diagnosis of disease.

Roberto R. Daher and Jarbas Doles.
Rev. Goiana Med. 18: 139-192, 1972.

Twelve serum enzymes were determined in 114 individuals: D – iditol dehydrogenase, lactic acid dehydrogenase, isocitric acid dehydrogenase, carbamyl ornithine transferase, aspartate transferase, alamine transferase, choline esterase, alkaline phosphatase, 5 - nucleotidase, leucine aminopeptidase, aldolase and glucose – phosphate isomerase. The individuals tested were thus distributed: normal - 20; hepatitis - 20; cirrhosis - 20; benign extrahepatic cholestasis - 11; malignant extrahepatic cholestasis - 9; hemolytic jaundice - 7; malaria - 8; schistosomiasis (hepatosplenic form) - 8; chronic passive congestion of the liver - 10. A revision of the literature is presented with special emphasis on the recommendations of the Commission of Enzymes of the International Committee of Biochemists. The different mechanisms responsible for liberation of enzymes from cells are also considered.

All material was submitted to statistical analysis and the results were presented by means of figures and Tables, thus allowing evaluation of all observations of this study.

The conclusions led us to arrange the different enzymes into groups according to their sensitivity and specificity in different hepatic diseases. The value of determination of transaminases for the diagnosis of hepatitis is pointed out; the high specificity of D – iditol dehydrogenase in this disease is stressed; the value of 5' – nucleotidase for the diagnosis of extrahepatic cholestasis is confirmed; the possibility of diagnosis of neoplastic etiology of obstructive jaundice by determination of serum lactic acid dehydrogenase and aldolase; the high sensitivity of choline esterase in liver disease and liver involvement by malaria causing hepatic failure, intrahepatic cholestasis or a clinical picture similar to that found in hemolytic jaundice.

65. – See n. 56.

66. – Clinical trials with Pyrantel Pamoate in intestinal parasitoses.

Katz, N., Ficker F, Chaves A. and Antunes, C. M. F.
Rev. Inst. Med. Trop. São Paulo, 14: 212-221, 1972.

127 patients with several helminthic infections were treated with pyrantel pamoate. The doses were 10 mg/Kg daily x 1, 10mg/Kg daily x 3, 20mg/Kg daily x 2 and 20 mg/Kg daily x 3 by oral route. Parasitologic control was performed by means of the quantitative methods of Kato and stool, Graham and Baermann. For recovery of eliminated ancylostomid and Trichuris 24 hours feces were sieved on 4 consecutive days.

With the dosage of 10mg/Kg daily a 100% cure was obtained in infections by ascaris and 84,6% in infections by enterobius. With a total doses of 30,30 and 60mg/Kg the percentage of cure in ancylostomiasis were 57,1,75,0 and 88,8% respectively. When this dosage schedule was used the drug showed partial activity against Trichuris, where a marked reduction of the average number of eggs in feces was observed as well as decrease of elimination of worms in feces.

In a group of 11 patients treated with 20 mg/Kg daily x 2, we obtained cure in 75% of infections by ancylostomiasis and 42,8% in trichuriasis. Thirty days later the same dosis was administered again. Parasitologic control performed 28 days after this second treatment did not show any new decrease of the average number of eggs of Trichuris in the feces and only 2 patients eliminated worms. However the 3 patients with ancylostomiasis had negative stool examinations.

As to Strongyloides stercoralis no therapeutic effect could be observed.

Tolerance to the drug was good – only five patients presented diarrhea and two vomiting on the day after the first dosis.

Owing to the low frequency of side effects and the high effectiveness of pyrantel pamoate on several intestinal helminthic infections, this drug should be tested on a large number of individuals with intestinal parasitic infections.

67. – Experimental biological cycle of Echinostoma erraticum, Lutz 1924 (Mendheim, 1940) Komma 1972.

Margarida Dobler Komma and Edimar Luiz Alves
Symmary of papers presented at the I Jornada de Pesquisadores Goianos.

For the first time the complete experimental biological cycle of Echinostoma erraticum Lutz, 1924 was studied. As definitive host the mouse was used and as intermediate host the snail Biomphalaria straminea.

Infection of the definitive host was achieved by oral administration of encysted metacercariae. This material was obtained from the pericardium of *B. straminea* naturally infected by metacercariae. The snails had been collected near Goiania.

Results: evolution to adult Trematodes in the small intestine in 10 days; this was confirmed by eggs in unicellular stage eliminated in the feces. Adult trematodes were obtained by necropsy. Infection of the intermediate host was obtained by exposition to miracidia.

Infective material: miracidia had been obtained from mature uterine eggs in the unicellular stage. They developed at room temperature in water. Time of larva formation till ecdysis: 8 to 10 days.

The evolution in snails was studied from the 10th day. It revealed: 10th day, rather developed sporocysts, fixed to the heart on the pulmonary vein; 12th. day some redias formed, 14th. day, first redias liberated in the pericardic area; colonization of the digestive gland by redias from the 17th. day on wards, first month redia on the 27th. day in the ovotestis; beginning of liberation of cercariae on the 28th. day; encysted metacercariae in the pericardic sac of the mollusk on the 31st. day.

The complete cycle lasted about 51 - 52 days.

68. - Clinical trials with pyrantel pamoate on intestinal helminths in urban and rural areas.

Katz, N., Antunes, C.M.F. and Zicker, F.
Rev. Inst. Med. Trop. São Paulo, 15 331-339, 1973.

97 patients with ancylostomiasis and trichuriasis were treated with pyrantel pamoate. 38 lived in urban and 59 in endemic (rural) areas. The schedules employed in the rural area were 20 mg/Kg daily x 2, 30 mg/Kg fractioned in 2 daily doses for 3 days and 20 mg/Kg daily, divided in 2 doses for 2 days and 20mg/Kg daily x2.

Laboratorial examinations were performed (hemoglobin, hematocrit, leucocyte counts and transaminase determinations) before and seven days after treatment in the groups treated with a total dosis of 90 to 100 mg/Kg. No significative changes were observed. Parasitologic control was made using the quantitative methods of Kato and Stoll, before, then on the 13-14th. and on the 20-21st. days of treatment. In view of the differences in the results which were obtained whether the patients were living or not in an area of active transmission, it was suggested that pyrantel pamoate had no effect on larval forms of ancylostomidae. This fact may be demonstrated experimentally by using the biologic model mouse *Nematospiroides dubius*.

Owing to the low frequency of side effects and the high therapeutic activity, pyrantel pamoate should be tried in mass treatment aiming the control of ancylostomiasis. It should be used in repeated doses.

69. - Preliminary clinical trials with oxamniquine, a new antischistosomal agent.

Katz, N., Pelegriño, J. Grinbaum, E., Chaves, A and Zicker, F.
Rev. Inst. Med. Trop. São Paulo, 15: 25-29, 1973.

Clinical trials with oxamniquine, an active metabolite of U. K. 3883 were performed on 24 patients with schistosomiasis. The drug was administered orally and intramuscularly. The only side effect was pain at the local of infection. With the oral route of administration, we observed decrease in white and red blood cells, in 2 out of 10 patients. Parasitologic control, made 1 month after treatment, showed decrease in the number of eggs of *S. mansoni* in the feces of 9 patients. However, 4 to 6 months after treatment, there was a significant diminution of eggs in 3 patients only. The best schedule was a single intramuscular injection, with the dosis of 7,5 mg/Kg. There was parasitologic cure in all patients of this group, including the 4 which had been infected 5 to 9 months before clinical treatment. Laboratorial and clinical data on the therapeutic activity of oxamniquine obtained until the present date indicate the necessity of new trials with this promising drug.

70. - New clinical trials with oxamniquine, a new antischistosomal agent.

Katz, N(1,2), J. Pelegriño (1,3) E. Grinbaum (2) Adelú Chaves and Fábio Zicker (1)
Rev. Inst. Med. Trop. São Paulo, 15 (6): 120-125, 1973. (supl. 1)

Clinical trials with oxamniquine were performed on 104 patients with active schistosomiasis. The dosage schedule used was that of a single intramuscular injection of 7,5 mg/Kg. Pain at the site of injection which lasted from 1 to 16 days was observed in all patients except five. The other side effect were mild and devoid of clinical importance. Laboratory examinations, performed 3 to 4 days after treatment, revealed increase of neutrophiles and of CPK level. In some patients a slight increase of serum transminases (GOT and GPT) was observed. The electrocardiographical studies registered changes of QRS complex and R and S waves. All but five out of 71 patients submitted to cure control were considered free of parasites including 11 with recent schistosomal infection (4 to 6 months after contamination). Oxamniquine seems to be a valuable tool for treatment of schistosomiasis.

71. - Electrophoresis of serum proteins on cellulose acetate of patients with South American *periphagus foliaceus*.

Vicente Raul Chavarria Irusta, William Barbosa, Wanderley Montenegro de Pitaluga Vasconcelos, Moacir Alves da Maia and Willian Ferreira Aires.
Rev. Pat. Trop. 2(4): 415-419, 1973.

100 sera of patients with pemphigus foliaceus were submitted to electrophoresis on cellulose acetate. 8 patients a mild form, the others presented the bullous exfoliative. Changes in proteinogram consisted of decrease in albumin and slight hypergamaglobulinemia with increase of alfa 1, alfa 2, and chiefly gama globulin. these changes were more evident in patients with the bullous exfoliative form before or quite at the beginning of treatment.

72. — **A simplified power supply consisting of pulsating electric current for electrophoresis**

José Braz Cesarino Netto and Maria do Carmo Moreira de Souza.
Rev. Pat. Trop. 2(4): 411-414, 1973.

A continuous pulsating electric current was tested for paper electrophoresis. A comparative study of 22 normal sera showed that there was good agreement with the results obtained when the usual continuous power supply was used. This system can be also used for micro electrophoresis on agar.

73. — **Incidence of Helminths in dogs (Canis familiaris) in Goiânia-Brazil.**

José Roberto Carneiro, José de Souza Freitas, Edson Pereira, Dulcinéia Maria Barbosa Campos and Consuelo da Veiga Jardim.

The incidence of parasites in dogs of Goiânia was investigated. The following results were obtained. A caninum 92,5% of autopsies; A brasiliensis 67,5%; D. caninum 45%; S. lupi 22,5%; T. canis 17,5% and the S. stercoralis 2,5%.

The occurrence of S. lupi was the highest observed to date in Brazil.

No parasites were found in the kidneys, bladder, ureters, heart, arteries and lungs.

74. — **Ectoparasites of stray dogs in Goiânia, Brazil.**

Édia de Sena Lustosa, José Roberto Carneiro, Maria Elisa S. Dourado Carvalho and José Henrique da Veiga Jardim.
Rev. Pat. Trop. 2(4): 397-399, 1973.

The following parasites were found in 40 dogs (Canis familiaris): Cueto cephalides felis felis (Bouché, 1835) Pulex irritans (L. 1758) Nosopsyllus fasciatus (Box. 1801) Heterodoxus longitarsus (Piaget 1830) Linognathus setosus (Olfers, 1816) Rhipicephalus sanguineus (Latreille, 1806).

A specimen of Nosopsyllus fasciatus, which is a normal ectoparasite of rats (Rattus rattus alexandrinus, E. geoffrey, 1803) was also found in one of the dogs.

75. — **Human Isosporiasis in Goiás (Brazil). Epidemiological, clinical and immunological data.**

Giovanni Septimi Cysneiros de Oliveira, William Barbosa and Alcione Leonardo da Silva.
Rev. Pat. Trop. 2(4): 387-395, 1973.

The epidemiological, clinical and immunological aspects of isosporiasis in Goiás (Brazil) are presented.

The incidence and seasonal distribution of the parasite in Brazil and in other countries are focalized. The state of Goiás (Brazil) holds the highest national casuistic of the disease with 164 positive cases found in 45.012 parasitologic examinations (0,36%) done from 1964 to 1973.

The parasites were determined, cultivated in 2% potassium bichromate and recognized by the zinc sulfate flotation method. The authors admit the duality of the species and try to show the pathogenicity of I. hominis from the clinical and immunological standpoint. In 9 selected cases, the immunological relationship between acute Isosporiasis and Toxoplasmosis was studied by the Sabin Feldman dye test and by means of fluorescence with labeled IgG and IgM using Toxoplasma gondii as antigen.

With IgG, positive results were found in all patients; with IgM in 5 cases; the Sabin Feldman test was positive in 8 cases. It is concluded that there is a group cross reaction among the parasites studied and Toxoplasmosis.

76. — **Previous note on Trypanosoma, type hastuatus, isolated from P. hastatus hastatus in the Fercal Cave - Brasilia - Brazil.**

William Barbosa, Sueli Pires Martins and Raquel Lopes de Oliveira.
Rev. Pat. Trop. 2(4): 367-376, 1973.

Trypanosomes were isolated from the bat Phyllostomus hastatus hastatus in the Fercal Cave situated near Brasilia. These flagellates were compared with those previously found in Brazil (Goiás, 1933; Minas Gerais, 1934-1935; Mato Grosso, 1940; Caxias, R. J., 1940) in these chiroptera.

The biomorphologic studies were carried out in culture materials and pertinent documentation is included in this paper.

77. — **Counterimmunoelectrophoresis in the diagnosis of visceral leishmaniasis with antigens of L. donovani, L. brasiliensis and "Leptomonas pessoai". Previous note.**

William Barbosa, Zair Benedita Pinheiro and Raquel Lopes de Oliveira
Rev. Pat. Trop. 2(4): 377-386, 1973.

Sera of 11 patients with visceral leishmaniasis confirmed by parasitologic examination and clinical control were studied by counterimmunoelectrophoresis using antigens of *Leishmania brasiliensis*, *Leptomonas pessoai* and *L. donovani*.

Positive results were 90%: 72,7% and 96,6% respectively. Among 60 control sera tested (16 with Chagas disease, 12 with mucocutaneous leishmaniasis, 12 with tuberculosis, 12 with South American blastomycosis and 8 with several other diseases) only 4 with tuberculosis and 1 with South American blastomycosis gave cross reaction with the antigen of *L. pessoai*. The method is very practical and cheap and shows high sensitivity and great specificity.

78. - Effects of an association of Sulfamethoxine and Trimethoprim in the treatment of South American blastomycosis.

William Barbosa and Wanderley Montenegro de P. Vasconcelos
Rev. Pat. Trop. 2(3): 329-339, 1973.

The association of Sulfamethoxine and Trimethoprim was used in the treatment of 34 patients with various clinical forms of South American blastomycosis. The patients were kept under control for a period of 60 days. Excellent results were obtained with cicatrization of the lesions within 35 days after onset of treatment. No side effects were observed.

79. - First reports on lymphosarcoma in bovines (Goiás, Brazil).

Edson Pereira, Vasco Martins Cardoso, José Roberto Carneiro and João Batista Gomes.
Rev. Pat. Trop. 2(3): 341-344, 1973.

The occurrence of bovine lymphosarcoma in "Gir" cattle in the State of Goiás, Central Western region of Brazil is being reported for the first time. Diagnosis was based on clinical, hematological and histopathological investigations.

80. - Coccidia in cats (*Felis catus domestica*) in Goiânia Biomorphologic study.

William Barbosa, Waldemar José Fernandes, Zair Benedita Pinheiro, Alcione Alves Teixeira and Giovanni S. Cysneiros de Oliveira.
Rev. Pat. Trop. 2(3): 311-319, 1973.

Fecal samples obtained from 50 domestic cats in Goiânia and its surroundings were investigated for the presence of coccidia. There species of *Isospora* were found: 1) *I. felis* (Wenyon, 1923) with oocysts measuring 36,5-57,6 micra by 25,3-41,5 micra, with an average of 21 by 17 micra were found in 76% of the cats. 2) *Isospora*

rivolta (Grassi, 1879, Wenyon, 1923) with oocysts measuring 20-28 micra by 15-24,9 micra, with an average of 20,8 by 16,8 micra; and sporocysts 13-9 by 7-10 micra, with an average of 10,3 by 8,6 micra were found in 30% of the cats: 3) *Isospora bigemina* (Étiles 1891, Luhe, 1906) with oocysts 12,6-16 micra by 11,4-15,3 micra with an average of 7,3 by 5,5 micra were found in 20% of the cats.

The possibility that some of the oocysts of *Isospora bigemina* are in reality *Toxoplasma gondii* is considered.

81 - Meningococcal meningitis in Goiás (Brazil). Evolution from an endemic to an epidemic state.

Joaquim Caetano de Almeida Netto, Cleômenes Reis, Lélío Leonardo Araújo, Benedito Pereira Damasceno and Dione Damasceno.
Rev. Pat. Trop. 2(3): 287-293, 1973.

Data are presented concerning the incidence of meningococcal meningitis at the "Hospital Oswaldo Cruz" in Goiânia from October 1970 to September 1972. These data are compared with those from October 1972 to June 1973. An increase in the incidence of Gram negative diplococci in bacteriological examinations of cerebrospinal fluid from 23,08% to 43,29% was observed and *Neisseria meningitidis* in cultures increased from 16,82% to 40,59%. It is concluded that meningococcal meningitis has attained a high epidemic prevalence.

82 - Prevalence of dental caries in schoolchildren of Goiânia, Goiás (Brazil)

Paulo Roberto Macedo Olinto.
Rev. Pat. Trop. 2(3): 279-286, 1973.

Prevalence of dental caries was investigated in 502 schoolchildren aged 7-14 in Goiânia.

The following results were obtained with permanent and milk teeth, respectively: caries 65,5% and 42,9%; filled teeth and 5,4%; extractions 10,5% and 50,1%.

83 - Studies on the systematic position, biology and transmission of Trypanosomidae found in *Zelus leucogrammus* (Perty, 1834) (Hemiptera, Reduviidae)

Aurora Luiz de Moura Carvalho.
Rev. Pat. Trop. 2(2): 223-274, 1973.

In this thesis, results of our studies on Trypanosomidae found in *Zelus leucogrammus* are presented, a common hemipter in our environment, predaceous on other arthropods.

Our data suggest that among trypanosomidae isolated from *Z. leucogrammus*, only one species of Blastocrithidia is the characteristic parasite of this hemipter; it is found in 100% of the specimens captured from nature; it maintains a permanent infection as it multiplies actively in the digestive tract and female reproductive organs of the insect; it is easily transmitted to populations of the hemipter by means of various mechanisms, including cannibalism. Nymphs of the first stage are probably infected by ingestion of resistant forms of the parasite eliminated in the feces of *Zelus* but we cannot reject the possibility of transovarian transmission. Cultivation of this Blastocrithidia was found to be difficult.

Other species of trypanosomidae, representative of the genera *Leptomonas*, *Herpetomonas* and *Crithidia* are found in small numbers in the digestive tract of *Z. leucogrammus* captured from nature and are not found in the specimens bred in laboratory. As they grow well in several culture, they can be easily isolated from the material where, originally, they formed the minority among trypanosomidae. We suppose that this species are only temporary hosts of the digestive tract of *Z. leucogrammus*. Their natural hosts must be other insects, mainly diptera over which *Z. leucogrammus* is predaceous.

We have found that the cultures of *Z. leucogrammus* isolated by Galvão et al under the name of "*Leptomonas pessoai*" contain *Herpetomonas muscarum* and another species of *Crithidia* but we have not been able to isolate *Leptomonas* from them. The promastigotes of these cultures probably represent evolutive forms of *H. muscarum*. This stresses the necessity of obtaining clones in cultures of trypanosomidae isolated from arthropods with mixed infection to avoid misleading interpretations.

In our opinion, Blastocrithidia from *Z. leucogrammus* is a new subspecies that is being described by us as *B. triatomae Galvãoi*. The other trypanosomidae isolated from this hemipter but probably arising from arthropods on which it depends for his food, include *Herpetomonas muscarum*, at least two species of *Crithidia*, one of which we have identified as *C. lucilae* and the other as *C. deanei* n. sp. and one of *Leptomonas*, *L. samueli* n. sp. A description of these flagellates and some data on their biologic characteristics are presented in this thesis, in which also *H. muscarum* and *C. lucilae* are being distinguished the first time in Brazil in a host other than flies.

84 - Occurrence of parasites in cats (*Felis catus domesticus*) and pidgeous (*Columbia livia*) proceeding from some localities of Minas Gerais (Brazil)

Heloisa Brandão Federman, João Carvalho de Holanda and Alfredo Evangelista
Rev. Pat. Trop. 2(2):207-215, 1973.

The incidence of parasites in 15 cats and 11 pidgeous from some localities of Minas Gerais (Itaúna, Belo Horizonte) was investigated. The following results were obtained: ectoparasites found in cats; *Ctenocephalides felis* (Buché, 1835); endoparasites in cats: *P. fastosum* 6,67%, *A. brasiliense* 33,34%, *A. caninum* 20,0%, *A. canthocephala* 13,34%.

The following endoparasites were found in the pidgeous. *A. columbae* 45,4%, *C. columbae* 18,9%; the only ectoparasite found was *Columbicola columbae* (Linnaeus, 1758).

It is pointed out that this is the first time that a relatively high incidence of pseudophyllidea was found in cats from the State of Minas Gerais.

85 - Meningoencephalitis - Clinical, Bacteriological and Therapeutic data of 451 cases

Joaquim Caetano de Almeida Netto, Cleómenes Reis, José Vieira Filho, Mário Diniz, Lélío Leonardo Araújo and Mohamed Nader M. Koleilat.
Rev. Pat. Trop. 2(2): 189-205, 1973.

351 cases of meningoencephalitis are presented. The aim of this paper is to show the most frequent etiologies and the therapeutic results obtained with an association of Penicillin G, Sulfadiazine and Chloramphenicol and with a broadspectrum semi-synthetic penicillin. A syndromic classification of the neurological picture in relation to the duration of the disease before hospitalization and the clinical evolution is presented. The meningoencephalites contributed with 21,26% of the hospital casuistic: acute bacterial meningoencephalitis occurred in 48,14% of the total cases, aseptic (viral and indetermined) in 46,72% and tuberculous in 5,09%. In the acute bacterial group, meningococcus was responsible for 56,1% of the cases, staphylococcus for 14,47%, pneumococcus for 11,34%, Pfeiffer's bacillus for 5,46%. Proteus, Pseudomonas, Klebsiella and streptococci occurred in less than 8% of the bacterial group, meningococcus was responsible for 56,1% of the cases, staphylococcus for 14,47%, pneumococcus for 11,34%. Pfeiffer's bacillus for 5,46%. Proteus, Pseudomonas, Klebsiella and streptococci occurred in less than 8% of the bacterial group.

A pure meningeal syndrome was observed more frequently in patients with less than two days of disease who presented a more favorable evolution than the patients with signs of encephalic and medullary involvement. Hospital mortality in the patients treated with a combination of penicillin G - sulfa - chloramphenicol, in 79 cases, was 25,32%; with epicillin in 36 cases was 16,66% and with ampicillin in 54 cases, 14,82%. It is concluded that meningococcus is the most important etiologic agent of meningoencephalitis in Goiás, that a single initial therapy with

broad-spectrum penicillin is superior than the association of penicillin G sulfadiazine – chloramphenicol and that a syndromic classification of the neurological picture is useful for the evaluation of prognosis.

86 – Tests with a pigment (violacein) produced by a probable new species of Chromobacterium.

Cleómenes Reis, Edith Blau and José Joaquim Taveira.
Rev. Pat. Trop. 2(2):185-187, 1973.

The results of spectrophotometric and chromatographic tests with a pigment produced by a probable new species of chromobacterium are presented. This pigment shows the characteristics described for violacein.

87 – Electrophoretic patterns of serum proteins in pemphigus foliaceus – An evolutive study in patients treated with corticosteroids.

Divino Miguel Rassi, William Barbosa, Anuar Auad, Grace Helena Daher Ceva and Maria do Carmo Moreira de Souza.

Serial electrophoretic determinations of serum proteins on filter paper were made in 23 cases of pemphigus foliaceus treated with high doses of corticosteroids. Serum protein levels varied according to the type of pemphigus: in the benign form, normal levels; in the bullous exfoliative form, marked hypoalbuminemia and hypergammaglobulinemia; in the erythrodermic form, hypergammaglobulinemia. In the two latter types, an increase of alpha 1 and alpha 2 globulins was observed in association with the acute recurrence of the disease. The electrophoretic patterns of serum proteins became normal during the course of corticosteroid therapy. However, individual changes of alpha and gamma globulins were related to the development of recurrences.

88 – Comparative study of 3 culture media for detecting corynebacterium diptheriae.

Cleómenes Reis, Mário Diniz, Augusto Luiz F. Braga and M. Nader M. Koleilat
Rev. Pat. Trop. 2(2):151-154, 1973.

35 patients of the Hospital Oswaldo Cruz in Goiânia (Goiás-Brazil) with clinical suspicion of diptheria were studied from August 1972 to March 1973. In 4 cases, bacterioscopy with the Albert – Laybourn stain did not show the presence of rods with metachronic granules, one of these cases revealed growth of colonies of Corynebacterium diptheriae in selective culture media.

When time of colony growth between a recently developed culture medium (RDK) and the traditional media of Hoyle and Gundel – Tetz was compared, it was

noted that corynebacteria grew much more readily in the former medium, showing an index of 60,2% in the first 24 hours, whereas the latter media revealed a growth index of 15,6% and 12,5%, respectively.

32 cases were positive, showing the typical colonial morphology of the organisms in all 3 culture media which were observed for 72 hours.

Examination of samples of C. diptheriae in the present study revealed greater incidence of the "mitis" type (65,6%) followed by the "intermedius" type (28,1%) while the "gravis" type was only seen in 6,2% of the cases.

89 – Blood clotting studies in Yellow Fever.

Antonio de Pádua Afonso Borges, Giovanni S. Cysneiros de Oliveira and Joaquim Caetano de Almeida Netto.
Rev. Pat. Trop. 2:143-149, 1973.

Hemostatic tests were performed in 6 cases of Yellow Fever with systemic hemorrhagic manifestations. Diagnosis of yellow fever was made by means of serological reactions. All patients showed thrombocytopenia and impaired clot retraction; 5 patients presented prolonged coagulation time, hypoprothrombinemia and hypofibrinogenemia; prolonged bleeding time was observed in 3 cases and deficiency of Factor VIII in 2 patients and of Factor IX in 3 patients.

These findings suggest the occurrence of disseminated intravascular clotting in human yellow fever.

90 – Crossing over immunoelectrophoresis applied to the study of South American blastomycosis. Previous note.

William Barbosa, Edith Blau, Joana Rosa de Mendonça and Raquel Lopes de Oliveira.

Rev. Pat. Trop. – 2(1): 1, 73-76, 1973.

Crossing over immunoelectrophoresis was used for detection of antibodies of P. brasiliensis in 31 patients with several clinical forms of South American blastomycosis. Positive results were obtained in 24 of these cases (77,4% positivity). Furthermore it was observed that precipitins were not detected in all serial serum specimens investigated and that its presence or absence could not be correlated with the period of the disease, treatment or clinical evolution. Further studies are necessary to assess the value of the method in the study of this disease.

91 - Prevalence and seasonal variation of gastrointestinal nematodes in calves in the region of Dourados, Goiás (Brazil).

Edson Pereira

Rev. Pat. Trop. 2(1):55-61, 1973.

The aim of this paper was to determine the prevalence and seasonal variation of gastrointestinal helminths in bovines in the region of Dourados - a representative zone of open pastures ("cerrados") in Goiás. We have tried to establish the periods for control treatment of enteroparasites in bovines in that region.

16 female calves were used for the experiment - 4 per each property. The animals were examined every 30 days for 12 months (20-3-71 to 20-3-72).

Feces were obtained directly from the rectum and examined by the Mc Master method, according to Gordon Whitlock (1939) for quantitative evaluation of eggs. Coprocultures for qualitative studies were performed by the Roberts and O'Sullivan's method. The genera were identified according to Keith (1953).

It has not been possible, in this study, to establish general norms for the different reactions of the Dutch bovines of that region to the nematodes.

A sudden change of management in form "A" with the rectum of 50% of the cattle to the farm in November, seemed to affect the behavior of the enteroparasites in the calves.

It was possible however:

1st. - To establish that the genera *Cooperia*, *Haemonchus*, *Strongyloides*, *Oesophagostomus*, *Trichostrongylus* and *Trichuris* occur in the region of Dourado, 35 km away from Goiânia.

2nd. - To observe a predominance of the infection by *Haemonchus* and *Cooperia* over the other nematodes in that area.

3rd. - To attribute the first serious infection occurring in calves in that region to *Strongyloidosis*.

Half-breed Dutch black and white bovines showed greater sensitivity to nematodes than Zebu half-breeds.

92 - NADP dependent enzymes of the Kidneys of sagoin.

Irusta, V. R. C.; Castro Filho, B. G.; Finto, C. and Miraglia, T.

Summary of paper presented at the Cong. Bras. para o Progresso da Ciência in Recife-Pe, 283-284, 1974.

In fragments of the Kidneys of sagoin frozen in liquid nitrogen and reduced to slices of 8 μ , the reactivity of NADPH₂ Tr, of 6-P6DH, of 6-P6DA of aconitase and of ICDH was investigated according to Wegmann (Techniques Histoenzymologiques, Paris, 1967). The distal convoluted tubule revealed the highest reactivity. They reacted with the same intensity to ICDH and to aconitase in the whole part of Henle's loop.

As to NDPH₂ - Tr and to 6-P6DH, this reactivity was only registered at thick part of Henle's loop situated at the external cortex. It diminishes progressively at the segments situated at the internal cortex and external medulla. Reactivity in all thick part of Henle's loop to 6-P6DH was lower than that observed at the distal convoluted tubule and it also diminished from the internal cortex to the external medulla. In the same way as the distal convoluted tubules but only to aconitase, reacted the straight part of the proximal tubules and the papillary segment of the collecting tubules. Equal reactivity but lower than that presented by the distal convoluted tubules was shown by the straight portion of the proximal tubules (6-P6DH and ICDH), the papillary segment of collecting tubules (ICDH) and the proximal convoluted tubule (NADPH₂ - Tr). In a less accentuated form reacted the straight portion of the proximal tubules (6-P6DH and ICDH) and the papillary segment of collecting tubules (ICDH) and the proximal convoluted tubule (NADPH₂-Tr) Still less markedly reacted the straight portion of the proximal tubule (NADPH₂-Tr and 6-P6DH), the papillary segment of the collecting tubules (NADPH₂-Tr, 6-P6DH and 6-P6DH) and that part of these collecting tubules situated in the external medulla and in the cortex (ICDH). The collecting tubules of the external medulla and cortex showed reduced reactivity (NADPH₂-Tr and 6-P6DH and aconitase.

93 - Meningococcal meningitis. A statistical analysis of 265 cases in Goiânia, Goiás - (Brazil), 1973.

Sydney Schmidt, Joaquim Caetano de Almeida Netto, José Vieira Filho and Luiz Fernandes Kratz.

Rev. Pat. Trop. 3(4):361-365, 1974.

265 cases of inpatients of the Hospital Oswaldo Cruz of Goiânia (from January to November) were analysed statistically.

The occurrence and lethality forms with and without purpura were correlated with age and sex.

- 1) Meningococcal meningitis with purpura was more frequent in females.
- 2) Lethality was increased in the group aged 0 to 1 year and diminished in the group aged 5 - 10 and 10 to 15.

The following indications await confirmation:

- a) Meningococcal meningitis is more common and severe, in terms of lethality in males
- b) Purpura did not represent a factor of marked severity since it occurred more frequently in females where lethality rate was lower than in males.
- c) The occurrence of purpura would be higher in age group 5 to 10 and 10 to 15 years and lower in the 0 - 5 year age group.

94 – Prevalence of helminths in cats (*Felis catus domesticus*) in Goiânia.

Dulcinéia Maria Barbosa Campos, Irene Machado Garibaldi and José Roberto Carneiro.

Rev. Pat. Trop. 3:355-359, 1974.

37 cats from Goiânia were necropsied. The following prevalence of helminths was found: *Ancylostoma caninum* 73%, *Ancylostoma braziliense* 52%, *Physaloptera praeputialis* 46%, *Dipylidium caninum* 21,5%, *Toxora cati* 19%, *Pseudophyllidea* 3%, *Aelurostrongylus abstrusus* 2%, *Acantocephalos* 2%, *Hydatigera taeniaformis* 3%.

95 – *Rhopalias Goyanna* n sp (Trematoda, *Rhopaliasidae*) parasite of marsupial of Nerópolis, Brazil.

Margarida Dobler Komma and Edimar Luiz Alves

Rev. Pat. Trop. 3(4):341-345, 1974.

In this work *Rhopalias goyanna* n sp, a parasite of the intestine of *Didelphis azarae azarae* (Tomnik, 1825) from Nerópolis, Goiás (Brazil) is described.

The new species resembles *Rhopalias horridus* (Diesing, 1850) but may be distinguished by the form of its body and by the framework of the proboxides.

96 – New mesophylic samples of *Chromobacterium* isolated from the water of three municipalities in Goiás (Brazil).

Zanilda da Silva Freitas, Cleómeles Reis, Mário Diniz, Hilda Maria Franco and Luiza Gomes de Paula.

Rev. Pat. Trop. 3(3):279-282, 1974.

From water samples sent for bacteriologic examination at the Laboratório Central da Organização de Saúde do Estado de Goiás (OSEGO) we have received samples of the municipalities Hidrolândia (Go), Ipameri (Go) and Cavalcante (Go).

All samples were cloudy. Count of colonies were between 20.000 and 21.000/ml. We isolated besides bacteria of the group coliform, *Proteus*, *Klebsiella*, *Enterobacter*, *Alkaleceus* and intermediary, gram negative rods which produced a violet ring in tubes with lactose and thioglycolat broth and dark and light violet colonies on tryptone agar, Levine and blood agar without diffusion of the pigment into the culture media. They were identified as bacteria belonging to the genus *Chromobacterium*, which produce a pigment called violacein.

97 – Investigations on the immunological mechanisms of mice inoculated with "Leptomonas pessoai" and their susceptibility to infection by *Trypanosoma cruzi*.

Maria do Carmo Moreira de Souza

Rev. Pat. Trop. 3(3):291-332, 1974.

In this work the immunological correlations between *Leptomonas pessoai* (a monoxenic protozoan isolated from *Zelus leucogrammus*) and other trypanosomes were studied we observed:

- That this protozoan (*L. pessoai*) was able to protect mice partially from infection by *Trypanosoma cruzi*, sample "Y"; evaluation of protection was obtained by means of the parameters parasitemia and mortality.
- Cross reaction between *L. pessoai*, *T. cruzi*, *C. fasciculata* and *Leishmania* (*L. brasiliensis*, *L. donovani*) by immunodiffusion on agar. Serum of rabbit rendered immune with *L. pessoai* was used.
- The presence of precipitins, agglutinins, complement fixing antibodies and cytophlic antibodies in the sera of mice rendered immune with *L. pessoai* was found. In this sera we observed the property of fixing complement in the presence of an aqueous extract of *T. cruzi* "Y".
- Cells producing spleen cells were detected in mice rendered immune with *L. pessoai* by the immunocyto adherence technic.
- The presence of hypersensitivity of the delayed type in mice rendered immune with *L. pessoai* by means of technic of inhibition of migration of macrophages was detected in the same degree as when the antigen of *T. cruzi* was used.

These observations show clearly that the antigen of *L. pessoai* induces humoral and cellular immunologic responses and that there exist determinant groups which are structurally correlated in *L. pessoai* and *T. cruzi* and are responsible for the cross immune reaction.

98 – Occurrence of dermatophytes in Goiás.

Onofre Pereira Machado, Maria do Rosário Rodrigues and Magda Helena Rosa de Souza.

Rev. Pat. Trop. 3(3):273-276, 1974.

The authors investigated 190 cultures of Dermatophytes which were isolated from patients of the Hospital das Clínicas da Universidade Federal de Goiás. The genus *Microsporum* was found 53 times and the genus *Trichophyton* 110 times and *E. floccosum* 27 times.

99 – Granulous form of *Trichophyton mentagrophytes* in spontaneous Tineas of the guinea pig.

Onofre Pereira Machado, José Roberto Carneiro, Maria do Rosário Rodrigues and Magda Helena Rosa de Souza.
Rev. Pat. Trop. 3(3):277-278, 1974.

The occurrence of dermatoses in guinea pigs caused by *Trichophyton mentagrophytes* in the granulous form was observed for the first time in Goiás. 9 samples were isolated from 20 guinea pigs and identified.

100 – Electron microscopy of *Chromobacterium*.

Cleômenes Reis, Cairo, Adolfo Brumer Junior and Maria do Rosário Rodrigues
Rev. Pat. Trop. 3(3):269-272, 1974.

A probable new species of *Chromobacterium* was isolated. Many observations have been made by using optic microscopy. By this technic it was not possible to detect similarities or differences between the new species and other samples of *Chromobacterium violaceum* and *C. lividum*.

With the usual staining methods it was possible by electron microscopy to visualize organelles and the cellular ultrastructure of this new sample. It was possible to compare them with known species of this microorganism.

As to its ultrastructure no marked differences have found, although the recently isolated sample presents a well-marked cellular wall which is separated by a small space from the plasmatic membrane; it contained monotrichous flagella whereas most known species of *C. violaceum* and *C. lividum* present peritrichous flagella.

101 – Comparison of counter-immunoelectrophoresis with other serologic technics in the diagnosis of chagasic infection. Previous note.

William Barbosa, Zair Benedita Pinheiro, Maria Luzalva Lócio Campos and Raquel Lopes de Oliveira.
Rev. Pat. Trop. 3(3):263-268, 1974.

154 sera from patients with confirmed Chagas disease were analysed by counter-immunoelectrophoresis. The results were compared with other serological tests such as complement fixations test, indirect hemagglutination and immunofluorescence.

The sera were separated into four groups and there was agreement in comparative data obtained in these groups. Only the results obtained in the second group (Group B) for counter-immunoelectrophoresis were not completely compatible

with the results of complement fixation test.

Although the data obtained in group B have been rather contradictory we believe that the results obtained demonstrate the possibility of a technical improvement and their use in the diagnosis of chagasic infection. However it became evident that counter-immunoelectrophoresis is able to detect small concentrations of precipitins in patients with chronic Chagas' disease, as well as in new born babies whose antibodies had passed the placental barrier and even in carriers of chagasic infection without symptoms.

102 – Cysticercosis in dogs in Goiânia (Goiás-Brazil).

Maria Alves Queiroz dos Santos, Francisco das Chagas Costa dos Santos and José Roberto Carneiro.
Rev. Pat. Trop. 3(3):251-253, 1974.

A case generalized cysticercosis was observed in a dog in Goiânia (Goiás) out of 800 necropsies carried out on dogs from 1966 to 1970 in the Escola de Agronomia e Veterinária of the Federal University of Goiás.

It was a Pointer, 3 years old and had epileptiform attacks. Cysticercosis was found in the liver, diaphragm, heart and muscles.

103 – Occurrence of *Isospora bigenina* (Stiles, 1891) in "Canis familiaris" in Goiânia.

José Roberto Carneiro, Zair Benedita Pinheiro, Edson Pereira and Waldemar José Fernandes.
Rev. Pat. Trop. 3(2):217-219, 1974.

Samples from 50 dogs of Goiânia were submitted to parasitologic analysis. In two samples the presence of oocysts of the species *I. bigenina* (Stiles 1891) was found.

This is the first time that the occurrence of *Isospora* parasiting *Canis familiaris* in the State of Goiás is being reported.

104 – Note on the occurrence of *Diocotophyme renale* (Goeze, 1782) in Goiânia.

José Roberto Carneiro, Edson Pereira and Lázaro Ronaldo Puglia.
Rev. Pat. Trop. 3(2):215-216, 1974.

The first case of occurrence of *D. renale* in Goiás (Brazil) is reported.

105 - Comparative study of the respiratory activity of bacteria of the Genus Chromobacterium.

Cleômenes Reis, Maria do Carmo Moreira de Souza and Isaac Roitman.
Rev. Pat. Trop. 3(2):191-195, 1974.

A comparative study of the respiratory activity between a new species of chromobacterium violaceum (Strain Goiás) and other three strains of chromobacterium was carried out by using a polarigraphic method. The results showed differences in oxygen uptake in the presence of several substrates. These results suggest that *C. violaceum* (sample Goiás) is a new species or a subspecies of the genus Chromobacterium.

106 - Study of immunofluorescent antibodies in visceral leishmaniasis with antigens of *L. brasiliensis*, *L. donovani*, "Leptomonas" pessoai and amastigote form of *L. mexicana*.

Marilene de Almeida Correia and William Barbosa.
Rev. Pat. Trop. 3(2):171-189, 1974.

60 samples from 10 patients with visceral leishmaniasis were examined progressively by indirect immunofluorescence. The following antigens were used: promastigote forms of *L. brasiliensis*, *L. donovani* and "Leptomonas" pessoai as well as amastigotes of *L. mexicana*.

As witness we used 100 sera from patients with South American Blastomycosis, Tuberculosis, Schistosomiasis, Chagas disease and Pemphigus - 20 sera of each disease were used.

Sera from 39 patients with cutaneous leishmaniasis were studied with the antigens of *L. brasiliensis*, *L. donovani* and "Leptomonas" pessoai.

We could only observe false positive reactions with titers equal or over 1/20 with the antigen of *L. donovani* in the witness groups.

With the serum of visceral leishmaniasis, the homologous antigens showed to be the most sensitive among the sera which were tested. The least sensitive was the amastigote form of *L. mexicana*.

During the period of observation of the disease there was a progressive fall in the titer of antibodies which however never disappeared completely.

107 - Reactions of gel precipitation in the study of visceral leishmaniasis.

Zair Benedita Pinheiro, Osvaldira Seabra de Oliveira and William Barbosa.
Rev. Pat. Trop. 3(2):153-170, 1974.

Sera from twelve patients with visceral leishmaniasis confirmed by parasitologic examination were studied by electrophoresis and several other

technics of gel precipitation, such as: immunoelectrophoresis against total human antiserum; against anti-IgA, anti-IgG and anti-IgM antiserum; reverse radial immunodiffusion for quantitation of immunoglobulins; counter-immunoelectrophoresis and Outcherlony double immunodiffusion.

Electrophoretic analysis showed increase of gamma globulins, while immunoelectrophoresis suggested that this increase was due to IgG fraction.

Determination of immunoglobulins demonstrated a marked increase of IgG in all and of IgM in most of them.

Counter-immunoelectrophoresis showed high sensitivity for detection of precipitins. Positive sera by this reaction when treated by mercaptoethanol did not become completely negative, e. e. precipitation bands did not disappear completely when they were submitted again to counter-immunoelectrophoresis.

By the classic Outcherlony immunodiffusion test we tried to detect circulating antigens making them react against serum but the results were ineffective.

108 - Incident of *Hymenolepis diminuta* in rats captured in Nerópolis (Goiás).

Sydney Schmidt, Dilce da Cunha Mattos and Edimar Luiz Alves.
Rev. Pat. Trop. 3(2):141-142, 1974.

The finding of *Hymenolepis diminuta* in 75% of rats captured in Nerópolis, State of Goiás (Brazil) is reported.

109 - Digenetic trematodes (Echinostomatidae) in the State of Goiás (Brazil).

Morphological and biological aspects of the sporocysts of *Echinostoma erraticum* Lutz, 1924 (Mendeheim, 1940) Komma 1972.

19 mollusks *Biomphalaria straminea* (Dunker 1848) from Goiânia (Brazil) were infected experimentally with *Echinostoma erraticum*, Lutz 1924 (Mendelheim, 1940) Komma, 1972. The sporocyst of this trematode was studied for the first time. The morphological, structural and biological characteristics were studied along 30 days starting with sporocysts with about 10 days of evolution.

The sporocysts develop on the pulmonary vein near the heart of the mollusk (ventricle). On the tenth day we observed well delimited germinative masses; on the 12th day the first redia appeared within a sporocyst; on the 14th day, the first free redia was seen in the pericardiac area. The sporocysts presented at the utmost three formed redia simultaneously. From the 18th day of infection some sporocysts showed signs of involution while other exhausted sporocysts were seen. The signs of involution consisted of changes in shape, absence of germinative masses, accumulation of dark granules. On the 40th day only exhausted sporocysts were left.

110 - Schistosoma Mansoni: The role of the complement C3-activating system in the cercaridal action of normal serum.

Arminda de Jesus Machado, G. Gazzinelli, J. Pellegrino, W. Dias da Silva.
Experimental Parasitology 38, 20.29 (1975)

111 - Meningococcal disease in Goiás - Epidemiologic data over 1971-1974.

Joaquim Caetano de Almeida Netto, Sydney Schmidt, Cleómenes Reis, Mário Diniz, Mohamad N. Koleilat, T. Branquinho, Zanilda S. Freitas, Dorivan C. da Rocha and Aminadabe R. Rodarte.
Rev. Pat. Trop. 4(3):43-54, 1975.

The principal epidemiologic data concerning meningococcal disease in Goiânia and its surroundings are reported in this paper. The data cover the period between 1971-1974 and are based on the casuistic of the Hospital "Osvaldo Cruz" for contagious diseases.

- 1 - Occurrence of the disease in relation to the total number of patients interned:
in 1971, 33 cases (4,3%); in 1972 - 62 cases (5,4%); in 1973 - 300 cases (17,3%) in 1974 - 1.078/1.646 (65,48%).
- 2 - Occurrence among meningitis of all etiologies:
in 1971 - 33 cases among 167 (19,76%); in 1972 62/250 (24,8%); in 1973 300/542 (55,31%); in 1974 1.078/1.646 (65,48%).
- 3 - Morbidity coefficient in Goiânia:
in 1971 - 4,13 cases per 100.000 inhabitants; in 1972 - 6,52; in 1973 - 33,3; in 1974 - 150,04.
- 4 - Mortality coefficient in Goiânia:
in 1971 - 0,97 in 100.000 inhabitants; in 1972 - 1,12; in 1973 - 4,60; in 1974 - 13,13.
- 5 - Lethality coefficient: in 1971, 8 patients out of 33 died (24,24%); in 1972, 11/62 (17,74%); in 1973, 41/300 (13,66%); in 1974, 109/1078 (10,11%).
- 6 - Monthly distribution: Homogeneous in 1971; Rising tendency in 1972; in 1973 and 1974 beginning in May and showing the highest incidence from August to December.
- 7 - Age distribution: in 1971 and 1972 there was a predominance in children under 5; in 1973 and 1974 in children over 5 and in adults.
- 8 - Serum types - in 1973 type C was predominant; in 1974, type A was predominant.

The reported data are characteristic of an epidemic situation since 1973. In 1974, meningococcal meningitis ranged first among contagious diseases requiring internation. At present this disease constitutes a high risk for the population, especially children and young adults. Data available upto December 1974 do not allow us to make any epidemiological evaluation of vaccination.

112 - Note on cerebral cysticercosis in swine in Goiás.

Edson Pereira and José Roberto Carneiro.
Rev. Pat. Trop. 4(3):39-41, 1975.

This paper reports the incidence of 77% of *Cysticercus cellulosae* in brains of swine naturally infected and refers to variations in their localizations in the brain.

113 - Studies on the pathogenesis of a new species of Chromobacterium.

Cleómenes Reis, Mauricio Sérgio B. Leite, Maria Lucia Mendonça da Veiga and Mário Diniz.
Rev. Pat. Trop. 4(3):33-37, 1975.

The pathogenesis of a new species of *Chromobacterium* (ATCC 29094) which has been recently isolated and was considered to be responsible for natural infection of swine studied.

Several animals were infected in this experiment including monkeys (*Cebus apella libidinosus* or *macrocephalus*). The pathogenic action of this sample was compared with other samples of *Chromobacterium violaceum*.

It was observed that high concentrations of bacteria cause a rapid toxemic and septicemic picture. In smaller concentrations it causes the development of the disease and septicemia in the same way as can be observed in natural infections of animals.

The similarities and probable differences between the infection caused by this new sample and the other known species are discussed.

114 - Natural evolution of intestinal helminthic infections in calves born during the rainy season in Goiás (Brazil).

José Roberto Carneiro.

Belo Horizonte, ICB/UFMG, 1975. Tese (Mestrado).

These are preliminary results on the natural course of intestinal helminthic infections in bovines in the State of Goiás. The study was carried out on calves of the Gir race born during the rainy season. The following results were obtained during the first twelve months of life:

- 1) The following helminths were found in six 12 months old submitted to necropsy: *Cooperia punctata*, *C. pectinata*, *Haemoncus similis*, *H. contortus*, *Psychostromylus axei*, *Bunostomum phlebotomum*, *Oeophagostomum radiatu*,

Trichuris discolor, *Agriostomum wryburgi* and *Dictyocanhs vivíparus*;

2) For the first time reported in Goiás are: *Agriostomum wryburgi*, *Bunostomum phlebotomum*, *Trichostrongylus axei* and *Dictyocaulus vivíparus*;

3) Analyses of the average of eggs in feces of the three groups of calves at the end of twelve months did not show any significant statistic difference;

4) Eggs of *Strongyloides* were detected in the feces of two week old calves; the largest number of eggs was found in the 2nd month of age; they disappeared when the calves were about six months old;

5) The following nematodes were found in decreasing order: *Cooperia*, *Haemoncus*, *Oesophagostomum* and *Trichostrongylus*;

6) *Cooperia* was not frequently found in the first three months of age;

7) Calves aged from nine to twelve months eliminated the largest quantity of eggs of *Oesophagostomum*.

115 – *Herpetomonas* in phytophagan of the genus *Dysdercus* (Hemiptera, Pyrrhocoridae).

Maria do Carmo Moreira de Souza.
Rev. Pat. Trop. 4(2):79-89, 1975.

The finding of flagellates in the intestine of a hemipter belonging to the family Pyrrhocoridae and genus *Dysdercus* is reported. They grow in various culture media: Ducrey, Roitman, LIT and medium of definite chemical composition at temperatures of 25, 28 and 37°C. When stained by Giemsa it presents promastigote forms, forms with kinetoplast situated laterally (lateromastigotes) round promastigotes (spheromastigotes) and opistomastigotes. Amastigotes were found only in the first replants. The sample was cloned ten times. Because of the constant presence of promastigotes and opistomastigotes we suppose that we have isolated a flagellate of the genus *Herpetomonas*.

116 – Finding of ancylostomidae in cats from several regions of Brazil.

Maria Alves Queiroz dos Santos.
Rev. Pat. Trop. 4(2):131-132, 1975.

Over the years 1972 and 1973 60 cats were submitted to necropsy. 10 cats were from Goiás, 10 from Minas Gerais 5 from Rio Grande do Sul and 35 from Rio de Janeiro. The following ancylostomidae were found: *Ancylostoma brasiliense* (82.5%) *Ancylostoma caninum* (49.2%) and *Uncinaria stenocephala* (3.1%). *Ancylostoma tanaeforme* was not found in any of these regions.

117 – A new species of *Chromobacterium* (Enbacteriales, Rhizobiaceae) isolated from a brook and from liver abscesses of swine in Goiás.

Cleômenes Reis.
Rev. Pat. Trop. 4(2):133-189, 1975.

In this paper a sample of *Chromobacterium* isolated from a brook and from liver abscesses of a pig in Goiânia (Brazil) is presented. Later liver abscesses from two other pigs were also studied and the bacteria were isolated from them. It seemed that the animals of the race Durco Jersey were more susceptible to infection by *Chromobacterium* than the animals of the race Wessex and Pietrain.

The sample was submitted to studies of identification, sensitivity to antibacterial agents, pathogenicity and immunologic tests. These examinations allowed individualization of the species.

In our work we were helped by eminent scientists (14, 42, 43, 60, 65) who are widely known authorities in this subject. In our country we were helped by authorities in Microbiology, Electron Microscopy, Physiology of microorganisms, etc. Without this help we could have done very little. There is no doubt that the isolated microorganism belongs to the family Rhizobiaceae, order Enbacteriales, Class Schyzomicets, genus *Chromobacterium* (name given by Bergonzini, 1881). It was recognized to be a mesophilic species. For a better fitting we had two choices: follow the orientation of Sneath followed by most European and North-American Authors; or the 7th edition of Bergeys Textbook where there is no reference to the recommendations of the Judicial Commission of Nomenclature of 1958.

We preferred to follow the rules proposed by Sneath although in all chapters of this work we have carried out a parallel study showing in all imaginary ways which would be our position if we had taken the second choice. Morphologically it is impossible to recognize any of the species of *Chromobacterium* when it is isolated from the water, soil or human lesion for it always presents itself as Gram negative rods whose size and form are quite similar to Enterobacteria, *Pseudomonas*, *Achromobacter*, etc.

The first clue for its identification is very important: its characteristic behavior in culture. In liquid media, the cloudiness of the media and the property of forming a pigmented veil. At first light blue, later bright violet.

The colonies on solid media may be small or middle sized, circular, convex. They may smell like HCN and amonia; they are colourless for 16-18 hours, then they become blue and at last after 48 hours a biright metallic violet colour appears. The recognition of the violet pigment – violacein – defines the genus. To recognize the species, the study of the temperatures which increase or inhibit its growth is generally enough.

However, in order to study the mesophilic species, biochemical tests, such as were proposed by Sneath are necessary. These tests and the results obtained are described in this paper.

118 - Incidence of ecto and endoparasites in pigeons (*Columba livia domestica*) in Goiânia.

José Roberto Carneiro, Édia de Sena Lustosa, Edson Pereira, Elisa D. Carvalho and Maria Amélia Nápoli.
Rev. Pat. Trop. 4(1):39-41, 1975.

The prevalence of species of endo and ectoparasites in 30 pigeons of Goiânia is reported for the first time. All pigeons were submitted to necropsy. Endoparasites:

Ascaridia columbae 65,5%, *Tropisurus confusus* 4,1%, *Tanaisia* (*Tarmelania*) *bragai* 16,6%, *Capillaria columbae* 8,3%, *Raillietina* sp 4,1%

Ectoparasites:

Columbicola columbae 80%, *Goniocotes bidentatus* 66%, *Pseudolynchia maura* 13%, *Falculifer rostratus* 10%.

119 - Incidence of aspergillosis in cavitary tuberculosis in Goiânia.

Maria do Rosário Rodrigues, Teobaldo Silva Costa, Zair Benedita Pinheiro and William Barbosa.
Rev. Pat. Trop. 4(1):25-27, 1975.

Four cases of pulmonary aspergillosis were detected in patients with cavitary tuberculosis. All were in-patients at Sanatório Juscelino Kubitschek. Detection was possible by the finding of precipitins, by immunodiffusion and in two cases by the isolation of *Aspergillus fumigatus* from Sabouraud medium.

120 - Histochemical localization of enzyme activity in the kidneys of male marmosets (*Callithrix jacchus* and *Callithrix penicillata*).

Tulio Miraglia, Vicente R. Chavarria Irusta, Bernardo G. Castro Filho and Gerson Pinto.
Acta anat. 92:385-410, 1975

The distribution of several hydrolases and oxidoreductases was studied in the renal parenchyma of adult male marmosets (*Callithrix jacchus* and *Callithrix penicillata*). The oxidative enzymes showed a high reactivity in the proximal and distal tubules, whereas the hydrolases reacted strongly in the proximal tubules but only weakly or not at all in the thick limb of Henle's loop, distal tubules and collecting ducts. The NAD-dependent enzymes (except a-GPDH) showed a stronger reactivity in the proximal tubules, while the NADP-dependent ones were more reactive in the thick limb of Henle's loop and distal convoluted tubules. Two groups of in-

terstitial cells were found in the medulla. A first group inside the outer medulla, showing cells rich in acid phosphatase and nonspecific esterases and a second group, close to the papilla, reactive to a certain number of oxidative enzymes. A different reactivity in cells of the distal convoluted tubules, thick limb of Henle's loops and collecting ducts (dark cells) was seen in the case of some enzymes like nonspecific esterase, a-GPDH and SDH.

121 - Contribution to the study of experimental pulmonary schistosomal pathology.

Vicente Raul Chavarria Irusta (1976).

The experimental pulmonary schistosomal pathology was studied in mice which had been infected by 50 cercariae of *S. mansoni* in which portal hypertension was produced by partial ligation of the portal vein. Histologic and histochemic techniques, immunofluorescence were employed. The animals were killed at different time intervals in order to evaluate the sequence of lesions.

It was observed that:

- a) At the beginning the eggs of *S. mansoni* reach the sub-pleural peripheric pulmonary parenchyma through small arteries. Later, as the process proceeds the remaining parenchyma is involved.
- b) The initial parenchymatous lesion is of the proliferative type. The structural elements of the parenchyma take part in this process specially pneumocytes of the Type II and endoalveolar elements.
- c) The proliferative granulomatous lesion is apparently the consequence of immunologic stimuli caused chiefly by intra ovulatory miracidia.
- d) Necrotic phenomena of the parenchyma and vascular segments were observed in the presence of embolism by *S. mansoni* in the arteries.
- e) The panarteritis of the terminal branches of arteries is a consequence of embolism by eggs of *S. mansoni*. This lesion is predominantly proliferative endarterial. The involvement of large branches is probably a consequence of pulmonary hypertension associated by egg embolism and consequent obliterative endarteritis.

The lesion is characterized by a marked thickening of the arterial walls. This type of lesion is indistinguishable of endarteritis with pulmonary hypertension due to other causes.

- f) The "angiomatoid" lesion was observed as a result of proliferative endarteritis with formation of numerous vascular perituits.
- g) No arteriovenous shunts were observed in the present study.

These findings were considered a reproduction of the lesions observed in human pathology and indicate the present experimental pattern as suitable for the investigation of problems connected with Schistosomal infection.

122 – Clinical trials with oxamniquine, by oral route, in Schistosomiasis Mansoni.

Naftale Katz, Emílio Grinbaum, Adelú Chaves, Fábio Zicker and José Pelegrino.
Rev. Inst. Med. Trop. São Paulo, 18: 371-377, 1976.

Clinical trials with oxamniquine by oral route were carried on 335 patients, with active schistosomiasis, who were divided into 7 groups, as follows: *Group A*: 49 adults and 52 children (15 years or under 15 years of age) treated with a single dose of 10 mg/kg (capsules). *Group B*: 31 children treated with a single dose of 12.5mg/kg (capsules). *Group C*: 40 adults and 33 children treated with a single dose of 15 mg/kg (capsules). *Group D*: 21 children treated with a single dose of 20mg/kg, administered after a snack. *Group E*: 60 children treated with 10mg/kg, twice a day (sirup) *Group F*: 24 children treated with 7.5 mg/kg, twice a day (capsules). *Group G*: 25 children treated, for 2 consecutive days, with 10 mg/kg day, five children having received the drug in the form of syrup and the remainder, in the form of capsules.

Dizziness, drowsiness, hallucination and excitability were the side-effects more of ten observed. They occurred 1 or 2 hours after drug administration and persisted, at most, for about 6 hours. Frequency and intensity of symptoms were seen to be correlated with dosage increase. Laboratory tests performed 3 days after the end of treatment revealed one patient with temporary leucopenia. Although statistical analysis revealed significant rise in the mean plasma transaminase levels, they were never found in individual cases, to be higher than 38 and 60 units for SGOT and SGPT, respectively. Parasitological control showed oxamniquine to be more active in adults than in children. In fact, in Groups A and B, the cure rates obtained were 78.78 and 93.81% for adults and only 0.0 and 30.5% for children. When children were treated with 20 mg/kg, the cure rate was 66.66%, and with 7.5 mg/kg and 10 mg/kg, twice a day, or 10 mg/kg/day x 2, the percentage of cure was about 85%. Oxamniquine actually seems to be a promising schistosomicidal drug when orally administered.

123 – Ecologic studies on the virus Oropouche during the epidemic of Manjiú dos Campos, Santarém, Pará.

Ishak, R.; Travassos da Rosa, A.P.A.; Travassos da Rosa, J.F.S. and Pinheiro, F.P.

Presented in XIIth. Congress of Soc. Brazilian Tropical Med. Belém (Brazil)
15/10/1976.

During the epidemic caused by the virus Oropouche in Manjiú dos Campos, at the beginning of 1975, the ecologic aspects of this disease were investigated.

Among the hematophagous insects of this are predominated culicoids and *Culex p. quinquefasciatus*. Over 18.000 markins, most of them *Culicoides paraenses* were captured and inoculated in mice. Two isolations of virus Oropouche were obtained. No isolation of this agent was obtained from 9.000 C.p. quinquefasciatus collected during the epidemic. Among the 602 jungle and domestic mammals investigated for the presence of HI antibodies for this virus a jungle rodent of the genus *Proechymys* was positive. All the 5 reptiles examined gave negative results. 34 (4,9%) of the 681 jungle birds and 12 (5,8%) of 206 domestic birds showed HI antibodies for the virus Oropouche.

124 – Evaluation of Helth Condition in Schoolchildren in the periphery of Goiânia.

Josetti do Carmo Barbosa de Parada

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers – 1977 p. 188.

The helth condition of schoolchildren in the periphery of Goiânia was investigated. The results may be considered valid for the towus of the interior of Goiás with rural and urban characteristics.

A sample of 521 schoolchildren aged from 7 to 14, were chosen. The children were submitted to medical and laboratory examinations (chiefly coproscopic) their antropometric measures were taken during 3 months. The results showed in all of the children parasitic infection, frequently 2 types of parasites per child, we found a high incidence of paleness and other signs indicating bad health condition as well as growth and weight deficiencies in respect to the figuees proposed by Gomes, in 64% of the children.

125 – Systemic behavior of meningococcal disease during an epidemic and clinical manifestations

Joaquim Caetano de Almeida Neto

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers – 1977 p. 185.

Meningococcal disease in an endemic form presents almost always the classic form of meningitis in children below the age 7 years. During epidemics the disease assumes frequently a systemic charater and other age groups are affected chiefly schoolchildren and young adults. This paper refers to the clinical manifestations observed in 990 cases studied at the Hospital Oswaldo Cruz in Goiânia in 1974.

Nervous system – Meningitis was observed in 846 cases (85,5%) meningoencephalitis in 100 (10%) encephalitis in 5 (0,5%) no neurologic symptoms in 39 (4%).

Cardiovascular system – Heart failure in 60 (6,1%) shock in 108 (11,0%) hemorrhagic manifestation in 474 cases (47,9%). 23 patients with hemorrhagic manifestations presented necrosis specially at the region of the gluteus muscle and limb extremities. Electrocardiographic changes of myocardial ischemia were observed in over 30% of the cases.

Respiratory function – Alterations of frequency and/or of rythm were observed in 10% of the patients. All these patients had symptoms of cardiac failure and/or shock.

Digestive tract – Diarrhea in 134, vomiting in 98, digestive hemorrhage in 16, jaundice in 15 and hepatomegaly in 132.

Urinary tract – Oliguria in 103 and anuria in 5.

Sequelae – Mutilations by ischemic necrosis in 23, motor deficit in 12, deafness in 9, behavior changes in 4 and equilibrium changes in 3.

Lortality coefficient – 95 patients died, over the halt withing the first 48 hours of admission in the hospital.

126 – Hexamines of human serum. Determination in Brazilian pemphigus.

Hélio de Almeida Guerra, José Salum, Lúcia O. Bonfim and Cacildo R. Santos

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers – 1977 p. 182.

A considerable number of papers demonstrate that serum hexosamines are markedly increased in patients with several diseases (Shetlar, M.R. et al., Cancer Research, 9:515, 1949; Shetlar, M.R. et al., Cancer Research, 10: 681, 1950). This situation is also found in laboratory animals in which similar diseases were provoked. (Shetlar, M.R. et al., Cancer Research, 10:445, 1950; Weimer, H E et al., Am. Rev. Tuberculosis, 68:594, 1953).

As to Brazilian pemphigus no paper has been found in literature as to the investigation of hexosamines. The purpose of this study was hexosamine serum. Blood was collected from 39 untreated patients from the Hospital of Pemphigus in Goiania. The method used was Elson Morgan, according to the technic described by Winzler (1955).

The results showed that serum hexosamine values were increased in 31 cases (71 – 120 mg%).

127 – Directional translocation of surface antigens of Schistosomules of Schistosoma mansoni.

Arminda de Jesus Machado

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers, 1977 p. 181.

Schistosomules of Schistosoma mansoni obtained artificially when incubated with specific human immune sera showed directional translocation of their surface antigens.

Using indirect immunofluorescence technics, it was demonstrated that surface antigens of schistosomules can be induced to directional translocation movements which are temperature dependent: a) at 4°C the schistosomules present linear distribution of the fluorescent material on their surface; b) at 37°C the fluorescent material shows polar localization.

This redistribution of the surface antigens induced by specific antibodies may be one of the mechanisms responsible for the evasion of the schistosomules from lythic action of the complement or the cytotoxic effect of the Killer cells in concomitant immunity.

128 – Anemia by anaplasmosis in Goiás.

Pereira, E. Carneiro, J.R.; Veiga, M.L.M.; Morais, O.S. and Oliveira, R.L.

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers, 1977 p. 180.

In Goiás a serious anemia occurs in young bovines (2 to 3 months old). This anemia is responsible for defficient growth and frequent deaths of calves of different races.

This disease causes marked economic losses to breeders not only in expenditures with drugs but also with the interruption of lactation of the cows.

The disease has different names, such as piroplasmosis, pneumo-enteritis, anaplasmosis, etc. It is attributed to various infecting agents.

An associated expensive therapy is used many times without results.

We intend to darify the etiology of the disease and study therapy wich is more efficient.

18% of the animals suffered from anemic crisis charactized by a rapid fall of the hematocrit, hemoglobin and red cell counts accompanied by anemia and fever.

All sick animals had a chromatic corpuscle at the periphery of a large number of red cells. No piroplasma were found. The chromatic bodies observed in Giemsa

colored smears are exactly like the rickettsias called *Anaplasma marginal* (Theiler – 1910).

The occurrence of *Strongyloides papillosus* was found in the animals under investigations.

It was concluded that *Anaplasma marginale* was the most responsible agent for the anemic crisis in the calves. We believe, owing to the complexity of the pathogen of Anaplasmosis, that there are other factors not yet studied that predispose our bovines to contract the disease in its acute form.

129 – Gastrointestinal helminths of swine in the State Goiás (Brazil).

José Roberto Carneiro, Edson Pereira, Édia de Sena Lustosa, Dulcinéia Maria Barbosa Campos and Maria Elisa S. D. Carvalho (1977).

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers, 1977 p. 177.

30 segments of the gastrointestinal tube of swine from cold – storage houses of Goiânia were examined for the presence of helminths. All the animals examined came from that region. The segments were opened according to the technic of Costa and Costa (1910). After collection and classification of the helminths, the following results were observed:

<i>Oesophagostomum dendatum</i>	85
<i>Ascaris swim</i>	38
<i>Stephanurus dentatus</i>	32
<i>Hyostrongylus rubidos</i>	26
<i>Ascarops strongylina</i>	14
<i>Trichuris suis</i>	10
<i>Physocephalus sescalatus</i>	7
<i>Globocephalus urusubulatus</i>	7
<i>Macracanthorhynchus hirudinaceus</i>	7

130 – A simplified test for lymphoblastic transformation for detecting levels of cellular immunity.

Alejandro Luquetti Ostermayer

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers, 1977 p. 176.

The test for lymphoblastic transformation (TTL) is universally reconized as useful for studying the functional capacity of the lymphocytes. It consists of culture in adequate media, for several days, of lymphocytes which, according to the stimulus used could change into large cells (activated) known as lymphoblasts.

The stimuli called mitogenic, can stimulate a large proportion of lymphocytes and thus almost the totality of T lymphocytes are activated when in contact with Phytohemagglutinin. Owing to the technical importance either in research or in clinical Work, and the technical difficulties as well as of material and specialized apparatus, a simple technic was developed, using as little material as possible, as well as few steps in the first sterile phase.

Soon the same syringe used to draw human heparinized blood is used to obtain plasma rich in leucocytes which is collected into a tube in which the lymphocytes are counted, the concentration is taken to 1×10^6 lymphocytes / ml on Parker medium (TCL 99) the suspension is cultivated in tubes 2 ml each. Phytohemagglutinin is added (5mg/ml) to at least three samples. After 72 hours at 37°C a slide with the sediment of each tube is made and 200 cells are counted after staining by May Grunwald Giemsa.

The results will be presented by obtaining between 50 and 80% lymphoblasts. It is concluded that it can be used as mitogenic for total evaluation of cellular immunity (HA) but it is not sensitive for the study of responses to antigens.

131 – Tests of lymphoblastic transformation. Correlation between morphology and triitated thymidine.

Alejandro Luquetti Ostermayer.

Summary of Reports presented in Ist. Goianos Cientific Researchers, 1977 p. 175.

In respect to this technic we frequently find in literature the presentation of the results either morphological (proportion of lymphoblasts in relation to lymphocytes at the end of the culture) or in incorporation of radioactive isotopes (cpm or dpm by culture or the relative quantity of isotope incorporated as DNA in the nuclei of the cells, presumably activated). Each of the technic has its advantages and disadvantages, the former being more objective and coarse not adequate for detecting small differences as is observed in activation by means of antigens. Therefore nowadays the study with radioactive isotopes is preferred which though it is more exact and more rapid, performed isolately, is a blind study as we do not know the viability of the cells or their final aspect after 7 or more days of cultivation.

Using lymphocytes separated by Ficoll-Hypa which are resuspended in TCL 99 with 10% autologous human serum. The culture is made on microplates stimulated by Phytohemagglutinin (2mg/ml) and incubated for 72 hours at 37°C in damp with 5% of CO₂ we are making the correlation between inspection with the inverted microscope, viability at the beginning and end of culture with trypan blue, number of lymphocytes and lymphoblasts in Neubauer counting chamber with Turk solution, morphology and proportion of cells transformed after staining with May

Grunwald – Giemsa and incorporation with tritiated thymidine (pulse of 16 hours with 2 μ Ci/ml, specific activity 2 Ci). Some results are presented.

132 – Occurrence of dermatophytes in the soils of Goiânia (Brazil).

Onofre Pereira Machado

Rev. Pat. Trop. 6(1-2-3-4) 1977.

Ecologic studies on dermatophytes of the soil were carried out in Goiânia.

Instead of human hair for the isolation of dermatophytes from the soil according to the original technic of Vanbrenseghem (1952), horse hair was used.

The fungi were isolated from 820 soil samples. They belonged to the genus *Microsporium* and *Trichophyton* according to the following percentage.

Complex <i>microsporium gypseum-fulvum</i>	– 439 (53,54%)
<i>Trichophyton mentagrophytes</i>	3 (0,36%)
Complex <i>Trichophyton terrestris</i>	3 (0,36%)

Four morphological types of the Complex – *Microsporium gypseum fulvum* were observed – one of these morphological types differs from the standard sample in its macroscopic and microscopic aspect suggesting that it represents a new variety.

The *T. terrestris* was isolated three times. This demonstrates that the fungus is very rare in the region investigated.

As to the zoophylic fungi, three samples of *T. mentagrophytes* were isolated two of the soil samples were collected in areas for the breeding of small animals and a third sample was collected in an old garbage depot.

The use of horse-hair for collection of the samples showed to be a good source of keratin for isolation of the genus Complex – *Microsporium gypseum – fulvum*, *T. mentagrophytes* and *T. terrestris* of the soil as well as for the natural observation of sexual forms.

T. ajelloi, *T. verrucosum* and *M. cookei* whose presence was observed in other regions of Brazil were not isolated.

133 – Clinical observations on cutaneous leishmaniasis at the Hospital das Clínicas UFG.

Ana Lúcia S. Andrade, William Barbosa and Ledice Inácia de Araújo Pereira (1977).

Summary of Reports presented in Ist. of Goianos Cientific Researchers, p. 134.

133 cases of cutaneous leishmaniasis were studied at this hospital from August 1965 to August 1977. Clinical, parasitologic and immunologic data were analysed.

The patients were distributed in 3 groups according to the duration of their lesions.

Group I – 38 cases included patients with lesions lasting 0-4 months.

Group II – patients with lesions lasting 4-24 months (47 cases).

Group III – patients with lesions lasting over 24 months (48 cases).

In order to investigate the probable natural evolution of the disease, each group was redistributed according to isolated involvement of the skin, mucosal surfaces or both. In patients of groups I and II a similar involvement of the skin was observed, in group III it was considerably more intense; on the other hand, isolated mucous lesions predominated in Group III patients. Associated lesions occurred in patients of the 3 groups suggesting a primary involvement of mucous membrane or precocious spreading in group I and II and persistence of activity of leishmania on the skin even after metastatic spreading in group III.

A high occurrence of multiple skin lesions was observed in this study. This is not observed in other areas in Brazil.

The clinical, immunological and pathological aspects of the disease are discussed.

134 – Investigations on coccidia of bats. Biomorphologic study. Cycle of development of *Toxoplasma gondii* in bats.

Zair Benedita Pinheiro and Waldemar José Fernandes

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers 1977 p. 133.

Samples of feces from six bats (*Phyllostomus hastatus*) captured at a cave near Brasilia were examined for the presence of parasites. One of the samples showed oocysts of coccidia and the material was put on Petri dishes containing 2% potassium bichromate. The oocysts developed into ovoid Isospora, with thick wall.

The oocysts were 25 micra long and 19 micra wide; the sporocysts were 11 micra long and 8,5 micra wide. Some of these bats died during the studies and histologic studies of the intestine revealed nothing. Sabin-Feldman reactions were carried out on five bats. Only the one with coccidia in the feces had a positive Sabin-Feldman reaction with a high titer (1/4.096).

The other bats were inoculated with *Toxoplasma gondii*. Further parasitologic examinations did not show oocysts of coccidia. Only the Sabin-Feldman test done same days after inoculation gave positive results in two bats a titer 1/256.

135 – Serious malaria by Plasmodium falciparum. Clinical, laboratory, therapeutic and epidemiologic data.

Leônio Leonardo Araújo, William Barbosa, Roberto Batista Pedrosa and Joaquim Caetano de Almeida Netto

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers 1977 p. 132.

Severe malaria caused by *P. falciparum* is a clinical entity characterized by fever, anemia, alterations of consciousness, renal insufficiency, respiratory insufficiency, alterations of blood coagulation and shock. These complications may lead to death withing a short period of time.

Many factors contribute to these complications: error of diagnosis, inadequate therapy, resistance of plasmodium to the conventional drugs and immunological condition of the patient.

In the present study, severe cases of malaria are analysed. All were patients of the Instituto de Medicina Tropical UFG. Clinical and laboratory data are presented. Treatment and complications are analysed; resistance to the drugs used for treatment, the efforts directed to prevent complications are emphasied.

136 – Poliomyelitis in Goiás – Virologic study.

Leão, J. E.; Linhares, A. C.; Pinto, F. P.; Vieira Filho, J. and Almeida Netto, J. C.

Summary of Reports presented in Ist. Meeting of Goianos Cientific Researchers 1977 p. 130.

With the purpose of laboratory confirmation of poliomyelitis in Goiás, as well as knowledge the type responsible for the epidemic which occurred in 1975 and 1976, the present virologic study was carried out.

Enterovirus were investigated in 50 samples of feces during the acute phase and antibodies for poliovirus in the sera of 73 patients.

Poliovirus were isolated from 27 samples of feces (54%). Polio I occurred in 23 (88,9%); Echovirus and Coxackievirus were isolated respectively from 7 (14%) and 12 (24%) of the 50 samples. Among 63 patients submitted to serological investigation for poliovirus (F.C. and T.U) 7 presented serum conversion, 52 with titers equal 1/32. Antibodies for polio I were prevalent in 56 cases of 66 sera (88,9%).

It is concluded that polio I was responsible for the epidemic and that serological diagnosis is reliable; Echo and Coxackievirus, though isolated frequently cannot be considered responsible for the clinical manifestations as all patients had high positive titers for poliovirus.