

HANSENÍASE: RESUMOS HANSENIASIS ABSTRACTS

BACTERIOLOGIA, IMUNOLOGIA BACTERIOLOGY, IMMUNOLOGY

ANTIA, N.H. Radioisotope labelling of *M. leprae*. Editorial. *Lepr. India*, 50 (2) : 123-125, 1978.

Therefore, before such techniques can be undertaken as routine procedures they need further refinement and standardization so that they can be confirmed and carried out in other centres where similar facilities are available. The search for other metabolites which may be more specific in terms of being constituents of *M. leprae* or its metabolic profile, thus offering a higher and more rapid labelling, should be explored. A better understanding of the metabolic and energy needs of this fastidious organism may help in the selection of such compounds for isotope studies. It is also possible that isotopic techniques may provide a better understanding of the nutritional needs of *M. leprae* and thus help towards its cultivation.

From the editorial

BACKE, J.T.; CHARLESWORTH, E.N.; GARCIA, R.L. IgM deposits in tubercloid leprosy. *Arch. Dermatol.*, 112:557-558, 1976. (Letter to the Editor).

BHUTANI, L.K. *Mycobacterium leprae* captured? Editorial. *Indian J. Dermatol. Venereol. Leprol.*, 42 (5):201-202, 1976.

BISWAS, S.K. Growth of *Mycobacterium leprae* in thyroxine treated culture medium — a preliminary report. *Lepr. India*, 50 (1): 57-63, 1978.

A new approach in cultivation of *Mycobacterium leprae* in thyroxine treated Lowenstein-Jensen media is reported. The method has been proved to be successful as the organisms multiplied and remained viable in the thyroxine solution added at the bottom of the culture vial, for a period

of 18 to 20 weeks of incubation at 37°C. This has been possible due to metabolic stimulating action of thyroxine sodium solution as well as diffusion of nutrients into solution from the medium. Intracutaneous inoculation of culture fluid on the surface of foot pad in cortisone treated mouse helped in rapid appearance of the specific lesion at the site within 20 days after injection. Both the intracutaneous method of inoculation and treatment of mouse with high doses of cortisone may play some role in shortening the period of development of such lesion.

Author's abstract

BROWNE, S.G. A vaccine for HD? *Star*, 38(2):8, 1978.

CAUZZI, N. Aspectos antigénicos del *Mycobacterium leprae*. *Bol. Inf. Soc. Argent. Leprol.*, 2(5): 29-30, 1978.

CHIRON, J.P.; DENIS, F.; MAUPAS, P.; LANGUILLON, J.; ROUX, G. Infection par le virus de l'hépatite B chez les hanséniens. 1. Détection de l'antigène et de l'anticorps de surface du virus de l'hépatite B par radio-immunologie. *Bull. Soc. Med. Afr. Noire Lang. Fr.*, 23(2): 174-182, 1978.

The frequency of surface antigen of hepatitis B virus (HBs Ag) and the corresponding antibody (anti-HBs) has been researched in 553 patients with leprosy and 100 Senegalese blood donors. This study has been carried out by radio-immunoassay. HBs Ag has been found in the serum of 25.5 % of the hanséniens as against 12 % of the controls whereas the presence of antibodies (anti-HBs) has been shown to be 44.1 % and 38 % respectively. HBs Ag and/or anti-HBs markers have been revealed in 67.1 % of the leprosy patients sera. The lepromatous forms more frequently

possess HBs Ag and/or anti-HBs (74.6 %) than the tuberculoid forms (62.9 %). No significant statistical difference with regard to sex, ethnic groups or mode of life have been discovered.

Author's summary

CHIRON, J.P.; DENIS, F.; MAUPAS, P.; GOUDEAU, A.; COURSAGET, P.; LANGUILLON, J.; ROUX, G. Les marqueurs du virus de l'hépatite B chez les lépreux. *Nouv. Presse Med.*, 8(9):659-662, 1979.

The hepatitis B virus markers, leprosy patients.

The hepatitis B virus markers were studied on 553 leprosy sera and 100 controls sera. HBs Ag detected by RIA were present on 25,4 % of leprosy and 12 % of controls; the anti-HBs by RIA were revealed in 44,1 % of patients out 38 % of controls. The leprosy was not carrying this markers were HBe Ag or anti-HBe or anti-HBe positive. By this vertical study it appears that 2,4 % of the cases presented recent or acute hepatitis; 23 % were chronic carriers; 41,7 % had been in times past infected but were cured and the third remaining had been infected but coat markers were absent, it is more than likely that is an old infected group. The study revealed no significant difference in hepatitis chronic forms frequency between lepromatous and tuberculoid patients.

Authors' summary

CUOMO, G. Inmunidad sérica en lepra. *Bol. Inf. Soc. Argent. Leprol.*, 2(5):31, 1978.

DAVID, H.L.; CLAVEL, S.; CLEMENT, F.; MEYER, L.; DRAPER, P.; BURDETT, I.D.J. Interaction of *Mycobacterium leprae* and Mycobacteriophage D29. *Ann. Microbiol. (Inst. Pasteur)*, 129B (4): 561-570, 1978.

This study of the interaction between *Mycobacterium leprae* and the mycobacteriophage D29 showed that the viruses caused a patchy damage of cell wall structure and the accumulation in the host of internal crystalline structures. Whether the observed ultrastructural alterations were caused by the replication of D29 was not clear. Mitomycin C also caused the accumulation of crystalline structures in *M. leprae*.

Authors' summary

DELVILLE, J.; HUYBRECHTS-GODIN, G.; JACQUES, P.J. Germicidal activity of the PIGO system on *Mycobacterium leprae* in vitro. *Arch. Int. Physiol. Biochem.*, 84:604-605, 1976.

FLIESS, E.L. Inmunogenética y lepra. *Boi. Inf. Soc. Argent. Leprol.*, 2(5):32, 1978.

FLIESS, E.L. & PACIN, A. La respuesta inmunológica a través del espectro clínico de la lepra. In: REUNION LEPROLOGICA DEL CONO SUR, 2 Buenos Aires, 1977. *Apud Arch. Argent. Dermat.*, 27(2-3): 11-116, 1977.

We studied cell mediated immunity in sixty leprosy patients (13 LL, 12 BL, 11 BB, 12 BT and 12 TT). In all cases its tested blastic dedifferentiation, with phytohemagglutinin (PHA) and Lepromin, and Cell Migration Inhibition test with Lepromin. We observed a stepdown in the immune response between normal response in TT pole to intense depression in LL pole. Same correlation is observed in responses to PHA and Lepromin in Blastic Dedifferentiation Test.

Authors' summary

FLIESS, E.; HERRERA, M.P. de; CARSELLA, E.D.; BALIÑA, L.M.; CARDAMA, J.E.; GATTI, J.C. Estudios inmunológicos en pacientes de lepra indeterminada. In: REUNION LEPROLOGICA DEL CONO SUR, 2.ª Buenos Aires, 1977. *apud Arch. Argent. Dermat.*, 27(2-3): 117-122, 1977.

A longitudinal immunologic study of patients with indetermined type of leprosy was done. Two kinds of tests were used: lepromin-reaction and rosette-E formation together with the clinical aspects. Those were performed in 1973 and subsequently in 1977. A striking difference could be determined between the lepromin-positive patients and those who were negative ($p < 0.01$) in 1973 in regard to the rosette-E test, being even more accentuated that difference in 1977. At the same time there was correlations between the immunologic response and the evolution up to for. This evolution could be influenced by the specific treatment. The twist of lepromin-reactions of patients with normal rosette-E tested in 1973 speak in favor of a better sensibility of that test "in vitro" as a prognostic sign.

Authors' summary

GATTI, J.C. *Inmunoterapia. Boi. Inf. Soc. Argent. Leprol.*, 2(5): 32-33, 1978.

GATTI, J.C.; BALIÑA, L.M.; CARDAMA, J.E.; PIZZARIELLO, G.E.A.; LUPPI M.S.; GABRIELLI, M.; VALDEZ, R. Estado actual de los cultivos e inoculación del bacilo de Hansen. *Arch. Argent. Dermatol.*, 28(1): 1-16, 1978.

GOODMAN, H.C. Immunology and tropical diseases: challenges and opportunities. *Ann. Immunol.*, 129C(2-3): 267-274, 1978.

Immunologists and leprologists, in the prototype TDR scientific working group on immunology of leprosy (IMMLEP), have been meeting and stimulating and coordinating research towards a leprosy vaccine since 1974. At their first meeting in 1974, the leprologists and immunologists agreed upon a strategic plan to develop a leprosy vaccine to be ready for clinical trial in five years. This is a particularly important goal, since drug resistance has recently been shown to exist to dapsone, the only practical chemotherapy now available for leprosy. The third meeting of the IMMEP Scientific Working Group (SWG), in February 1976, reported encouraging progress and that the strategic plan was on schedule. Although in vitro cultivation of *Mycobacterium leprae* has still not been accomplished the supply of *M. leprae* from in vivo infected armadillos had been doubled, and killed organisms so obtained could be shown to produce cell mediated immunity in experimental animals and to protect mice from *M. leprae* infection. It is hoped that studies in man of the immune response to killed *M. leprae* may be underway before the end of 1978.

From the article

GREIDING, L.; CUOMO, G.; MATHOV, E.; CASALÁ, A.; ROIZMAN, N.; PASSESANISSI, M.; NUÑEZ, J.; SZIAZER, M. Plasmaferesis en pacientes afectados de lepra lepromatosa: evaluación clínica e inmunológica de los resultados obtenidos. In: CONGRESSO LATINO-AMERICANO DE ALERGIA E IMUNOLOGIA, 6.º, Guarujá, 1977. Resumos de trabalhos científicos. São Paulo, Sociedade Latino-Americana de Alergia e Imunologia, 1977. p. 54-55.

HADDAD, N.; BECHELLI, L.M.; SIMÃO, E.T.; KWAPINSKI, J.B.G. Reatividade à tuberculina e à lepromina após aplicação de B.C.G. intradérmico em

crianças de 6 meses a 4 anos. In: CONGRESSO BRASILEIRO DE HIGIENE, 19.º CONGRESSO PAULISTA DE SAÚDE PÚBLICA, 1.º, São Paulo, 1977. Resumos dos trabalhos: temas livres. São Paulo, 1977. item 9.4.

HAN, S.L. & KUO, S.L. Ability of the leprosy macrophage to accept cytophilic antibodies. *Chin. J. Microbiol.*, 8(1): 59-63, 1975.

The ability of leprosy macrophages to accept cytophilic antibodies was not damaged. Blood macrophages derived from both types of leprosy formed rosettes with cytophilic antibody sensitized goat red cells. The rosette forming rates of tuberculoid (65.0%) and lepromatous macrophages (66.4%) were essentially the same as that of normal blood macrophages (68.8%).

Authors' abstract

JOB, C.K. Immunology and the changing profile of leprosy. *Lepr. India*, 50(2): 214-230, 1978.

Introduction. Causative organism. Pathology and classification. Transmission to experimental animals. Lepromin test. Defense against infection. Immunogenetics. Immunotherapy. Leprosy vaccine. Conclusion.

KAUR, S.; KUMAR, B.; GUPTA, S.K. Fine needle aspiration of lymph nodes in leprosy. A study of bacteriologic and morphologic indices. *Int. J. Lepr.*, 45(4): 369-372, 1977.

Lymph node aspiration was performed from the inguinal group of lymph nodes in 16 patients having lepromatous or borderline leprosy. In the same group of patients impression smears of excised lymph node and slit smears of the skin were also studied. This study made it obvious that the aspiration biopsy technic gave similar information regarding the Bacteriologic (BI) and Morphologic Indices (MI) as the impression smears of excised lymph nodes. The technic of aspiration being simple and nontraumatic is recommended for the follow-up of patients on antileprosy drugs and in reactional phases.

Authors' summary

KRONVALL, G.; GLOSS, O.; BJUNE, G. Common antigen of *Mycobacterium leprae*, *M. lepraemurium*, *M. avium* and *M. fortuitum* in comparative studies

using two different types of antisera.
Infect. Immun., 16(2): 542-546, 1977.

No. 21 mycobacterial antigens of *Mycobacterium lepraemurium*, *M. avium*, *M. fortuitum*, and *M. leprae* were compared in crossed immunoelectrophoresis using two different antibody sources, a serum pool from lepromatous 1 eprosy patients (LSII) and a rabbit anti-*M. smegmatis* antiserum. *M. lepraemurium*, like *M. avium*, was found to contain the 21 A and 21 C determinants. *M. fortuitum* contained in addition a new type of determinant, 21 D. *M. leprae* antigen no. 21 carried the A as well as the B determinants, the latter found so far only in the leprosy bacillus. The separate taxonomic position of *M. leprae*, suggested by earlier studies of the no. 21 antigen, is further supported by the present results, which also demonstrate the potential use of submolecular heterogeneity for such investigations.

Authors' abstract

LAUB, R.; DELVIT, L.F., J.; COCITO, C. Immunological relatedness of ribosomes from mycobacteria, nocardiae and corynebacteria, and microorganisms in leprosy lesions. *Infect. Immun.*, 22(2): 540-547, 1978.

Serological relatedness of ribosomes from microorganisms of the *Mycobacterium*, *Nocardia*, and *Corynebacterium* genera has been analyzed by the microplate immunodiffusion technique. *Mycobacterium* and *Nocardia* proved homogeneous and closely related taxa, whereas *Corynebacterium* was found to be a heterogeneous phylum connected by remote links to the others. The taxonomic position of "diphtheroid microorganisms" (non-acid-fast, gram-positive bacteria morphologically similar to corynebacteria), which were found together with *Mycobacterium leprae* in human leprosy lesions, was also investigated. Ribosomes of diphtheroid bacteria strongly cross-reacted with antisera against several mycobacteria and nocardiae but not against corynebacteria. Moreover, ribosomes from independently isolated diphtheroid strains proved serologically related and yielded strong cross-reactions with antisera against *M. leprae* as well as with sera from leprosy patients. Hence, diphtheroid microorganisms represent a homogeneous group immunologically related to mycobacteria in general and more specifically to *M. leprae*.

Authors' abstract

LESER, P.G.; MARGARIDO, L.; SANTOS, M.R.M.; SARTORI, S.G.; HARES, W. A.; MENDES, N.F.; LESER, W. Cultura de linfócitos de 5 pacientes virchowianos com estimulação por 3 dias, pela fitohemaglutinina (PHA) adicionada inicialmente e após 14 dias de incubação com dose subestimulante de PHA, em meios com soro autólogo e com soro homólogo. Índices de transformação blástica antes e após terapêutica com fator de transferência (FT). In: CONGRESSO LATINO-AMERICANO DE ALERGIA E IMUNOLOGIA, 6°, Guarujá, 1977. Resumos de trabalhos científicos. São Paulo, Sociedade Latino-Americana de Alergia e Imunologia, 1977. p. 86.

LESER, P.G.; SANTOS, M.R.M.; SARTORI, S.G.; HARES, W.A.; MENDES, N.F.; NASPITZ, C. Determinação de linfócitos T e de linfócitos B em 15 hansenianos Mitsuda-negativos. In: CONGRESSO LATINO-AMERICANO DE ALERGIA E IMUNOLOGIA, 6°, Guarujá, 1977. Resumos de trabalhos científicos. São Paulo, Sociedade Latino-Americana de Alergia e Imunologia, 1977. p. 87.

MASUDA, A.; MENDES, N.F.; SCHEINBERG, M.A. Anergia cutânea em hanseníase virchowiana. In: CONGRESSO LATINO-AMERICANO DE ALERGIA E IMUNOLOGIA, 6°, Guarujá, 1977. Resumos de trabalhos científicos. São Paulo, Sociedade Latino-Americana de Alergia e Imunologia, 1977. p. 53.

MASUDA, A.; MENDES, N.F.; SCHEINBERG, M.A. Estudo da função monocitária em pacientes com hanseníase. In: CONGRESSO LATINO-AMERICANO DE ALERGIA E IMUNOLOGIA, 6°, Guarujá, 1977. Resumos de trabalhos científicos. São Paulo, Sociedade Latino-Americana de Alergia e Imunologia, 1977. p. 53.

MATSUO, Y. & UTSUNOMIYA, S. Attempts at cultivation of *Mycobacterium leprae* in cell cultures. *Jap. J. Microbiol.*, 20(5):471-473, 1976.

MIRANDA, R.O. Inhibición de la síntesis de anticuerpos por la talidomida. *Bol. Inf. Soc. Argent. Leprol.*, 2(5): 33, 1978.

MORI, T. Cultivation of *Mycobacterium lepraemurium* on modified 1% Ogawa yolk media. *Jap. J. Leprosy*, 46(2):48, 1977.

MORINO, J. Estudios inmunológicos en pacientes de lepra y convivientes. *Bol. Inf. Soc. Arg. Leprol.*, 1(4) :23-24, 1977.

MORINI, J.C. Inmunidad mediada por células en lepra. *Bol. Inf. Soc. Argent. Leprol.*, 2(5) :30-31, 1978.

MUROHASHI, T. & YOSHIDA, K. Cultivation of *Mycobacterium leprae* using semi-synthetic medium. *Kitasato Arch. Exp. Med.*, 49(3) :55-61.

MUROHASHI, T. & YOSHIDA, K. Isolation of *M. leprae* using semi-synthetic solid agar medium. *Acta Leprol.*, (70) :3-21, 1978.

MUROHASHI, T. & YOSHIDA, K. Stimulating effect of leucine on the growth of *M. leprae*. *Acta Leprol.*, (70) :23-33, 1978.

M-Y 16j agar slant was prepared by modifying M-Y 14b which has hitherto been used most widely in our experiments by increasing the amount of Na pantothenate and adding leucine, and the growth stimulating effect was investigated referring to the foregoing subculture experiments. The results revealed that the growth of *M. leprae* was stimulated remarkably in the primary isolation quite similarly to the subculture. This seemed to be resulted from stimulated biosynthesis of fatty acids by the leucine metabolism.

Authors' summary

NIGAM, P.; GOYAL, B.M.; MUKHIJA, R. D.; VAJPEYI, G.N. Leprosy: susceptibility concerning ABO blood groups and study of VDRL reaction. *Indian J. Berm. Venereol., Leprol.*, 42(2) :75-79, 1976.

NUTI, M.; TARABINI, C. G.; TARABINI, C.G.L. Lebbra e mycobacteri atipici: 1) Studio della cutireattività, a varie sensitine atipiche in pazienti portatori di lebbra lepromatosa e tubercoloide. *Acta Leprol.*, (68) :25-34, 1977.

This study was carried out in Jilib. south of Somalia, on patients with lepromatous (57 cases) and tuberculoid (24 cases) leprosy; in each case a series of 6 skin-test antigens was employed (from *M. tuberculosis*, *M. scrofulaceum*, *M. xenopei*, *M. africanum*, *N. farcinica*, *N. otididis*).

The results obtained showed an unexpected and anomalous high percentages of positive - reactions; the largest recorded

mean diameter of induration was 100 mm to PPD-S from *M. tuberculosis*. The mean size with this antigens was 19,8 mm in lepromatous group and 11,1 mm in tuberculoid one. The most severe reactions occurred among lepromatous patients and in 5 cases ulceration was produced; ulceration occurred also in 3 tuberculoid patients after skin testing. Reactivity to the antigens varies from 75 % for *M. tuberculosis* to 3 % for *M. farcinica* in L group, while in T forms the percentage was respectively 70 % and 8 %; the most significant difference among two leprosy groups of patients it was found for testing with *M. scrofulaceum* with percentage of 73% in L form and 41 % in T form and for *M. xenopei* with 26 % and 4 °A respectively.

Authors' summary

OMS, Genève. Immunology of leprosy. *Bull. OMS. WHO*, 56 (6) :870-871, 1978.

OMS, Genève. Immunoprophylactic aspects of the IMMLEP programme. *Newsletter: spec. prog. res. train. trop. dis.*, (9) :13-15, 1977.

PETTY, M. India and Carville collaborate on HD vaccine research. *Star*, 37 (3) :2, 1978.

PRABHAKARAN, K. Tissue specificity of *Mycobacterium leprae*. *Star*, 37(2) :2-3, 1977.

PRABHAKARAN, K.; KIRCHEIMER, W. F.; HARRIS, E.B. Hansen bacillus: failure of culture attempts. *Star*, 36(6) :13, 1977.

REICH, C.V. Immediate-type hypersensitivity response to Mitsuda lepromin component. Correspondence. *Int. J. Leprosy*; 45(4) :381, 1977.

RIDLEY, M.J.; RIDLEY, D.S.; TURK, J.L. Surface markers on lymphocytes and cells of the mononuclear phagocyte series in skin sections in leprosy. *J. Pathol.*, 125(2) :91-98, 1978.

E, EA and EAC rosetting techniques and Ig fluorescence were used in a study of receptor sites in cryostat sections of lesions through the spectrum of leprosy, and for comparison in some other mycobacterial and granulomatous lesions. Anti-C₃, and trypsin were used as blocking agents. Lymphocytes in borderline lepromatous leprosy produced EA adherence and IgC fluorescence indicating B type cells. Lymphocytes

in tuberculoid leprosy produced neither E or EA adherence and no fluorescence; these cells were presumed to be T cells. EAC and EA adherence was more marked in areas of macrophage infiltration, where there were few lymphocytes, than over the lymphocytes themselves. Two distinct patterns emerged: (i) EA binding together with IgG fluorescence was seen in active lepromatous leprosy and could be localised to the surface of individual macrophages, and (ii) EAC binding together with IgM fluorescence was seen in the granuloma of tuberculoid leprosy and sarcoidosis, but could not be definitely related to cell surface; rather it was diffusely spread over the whole granuloma; EAC adherence was diminished by anti-C₃ serum. Trypsin removed EA binding completely, but only diminished EAC adherence. It is suggested that the EA pattern indicates immunoglobulin receptors on macrophage and lymphocyte surfaces: and that the EAC binding (which is stronger than EA) involves Ca and IgM receptors at extracellular sites as well as C₃ receptor sites on epithelioid cell surfaces. EA and EAC binding were enhanced in borderline tuberculoid leprosy in reaction and erythema nodosum leprosum, suggesting that immunoglobulin and complement receptor sites increase in number with enhanced hypersensitivity.

Authors' summary

ROTBURG, A. O defeito específico da imunidade celular na hanseníase (margem anérgica). In: REUNION LEPROLOGICA DEL CONO SUD, 2.11, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3):89-92, 1977.

The "Factor N-Anergic margin" theory is revisited after 40 years of being postulated. New methods and technics applied to this hypothesis could eventually contribute to the better knowledge of the immunology of hanseniasis and give new approaches to research in this field.

Adapted from the summary

ROTBURG, A. O "defeito da imunidade celular" na hanseníase: a velha hipótese brasileira da "margem enérgica". In: CONGRESSO LATINO-AMERICANO DE ALERGIA E IMUNOLOGIA, 6', Guarujá, 1977. Resumos de trabalhos científicos. SEW Paulo, Sociedade Latino-Americana de Alergia e Imunologia, 1977. p. 52-53.

SAHA, K. & CHAKRABORTY, A.K. Serum complement profile in human leprosy

and its comparison with immune complex diseases. *Int. J. Lepr.*, 45(4):327-337-1977.

In the present study we have estimated the serum levels of early, middle, and distal complement components, e.g., Clq, C3, C4, C5, C8, and C9 along with C1-inactivator and CH50 in patients with tuberculoid and lepromatous leprosy and have compared these results with the levels in healthy subjects as with levels in patients with other immune complex diseases. We have also analyzed the cryoglobulins present in the sera of these patients; they consisted of either a single or mixed IgG, IgB or fibrinogen in most instances. The component C3 was found in only one sample. It appears that unlike lupus nephritis, in which complement is activated by direct path in about 30% to 50% of leprosy patients, significant C3 complement consumption takes place primarily via the alternate pathway and is probably initiated by the aggregated immunoglobulins represented in cryoprecipitates. This is further supported by the study of serum factor B and its breakdown product (Ba) in these patients. The question of the role of the middle and distal complement components, such as C5, C8 and C9, during total hemolytic complement and C3 consumption in leprosy remains unanswered.

Authors' summary

SAHA, K.; MITTAL, M.M.; MAHESHWARI, H.B. Passive transfer of immunity into leprosy patients by transfusion of lymphocytes and by transfusion of Lawrence's transfer factor. *1. Clin. Microbiol.*, 1(3):279-288, 1975.

SAHA, K.; SARIN, G.S.; CHAKRABORTY, A.K.; SEN, D.S. Ocular immunoglobulins in lepromatous leprosy. *Int. J. Lepr.*, 45(4):338-342, 1977.

Immunoglobulin levels in the ocular fluids have been estimated in normal subjects and lepromatous leprosy patients. In the normal tear, IgA is the major immunoglobulin while IgG is the only immunoglobulin detected in the aqueous humor. The immunoglobulin profiles in the tear and the aqueous humor in normal subjects are different. The mean IgA level in the tears of the lepromatous leprosy group is significantly lower than in the control patients. IgA and IgG levels are raised in the aqueous humor of some leprosy cases who had suffered from uveitis in the past and also in all cases with active endogenous uveitis.

Therefore, in lepromatous leprosy the pattern of immunoglobulin alteration in the tear and the aqueous humor is not parallel.

Authors' summary

SAOJI, A.M. & MENE, A.R. Persistence of Australia antigen in leprosy — A frustrating puzzle in immunology. *Lepr. India*, 50(1):7-10, 1978.

This paper deals with the relationship of Australia antigen (Au) to various subgroups of leprosy, in a total of 200 cases. Au was found to be present up to 4% in lepromatous leprosy, 2% in tuberculoid leprosy and lepra reaction, and 3% of antibody in lepromatous leprosy. Presence of antibody denotes past antigenemia. The quantitation of the antigen is done using the new technique of Electro-immuno-diffusion (EID) ou Laurell, synonymous with rocket technique. The persistence of the antigen is explained in the light of deranged immunological mechanisms

Authors' abstract

SAOJI, A.; MENE, A.; SHARMA, K.D. Electrophoresis and immuno electrophoresis in leprosy. *Lepr. India*, 50 (2): 161-165, 1978.

50 cases of leprosy belonging to various subgroups i.e. 10 tuberculoid, 25 lepromatous leprosy, 10 lepra reaction, 5 dimorphic leprosy, and 25 cases or normal individual were subjected to agar gel electrophoresis. The slides were scanned by densitometry. It showed profound departure from normal in various fractions of electrophoretic patterns. All of them showed rise of gamma globulin. Albumin was markedly decreased in lepromatous leprosy and lepra reaction. In dimorphic leprosy Alfa-1, was decreased. Qualitative immuno electrophoresis was done by using antihuman serum raised in the laboratory, by immunising rabbits. It revealed changes in IgM and IgG arcs. Results are discussed and tried to explain on immunological derangement.

Authors' abstract

SASIAIN, M.C. Exploración de la inmunidad mediada por células en pacientes con lepra. *Boi. Inf. Soc. Arg. Leprol.*, 1(4) :23, 1977.

SERJEANTSON, S. & WOODFIELD, D.G.

Immune response of leprosy patients to hepatitis B virus. *Am. J. Epidemiol.*, 107(4):321-327, 1978.

The immune responses of 323 Melanesian leprosy patients and 290 controls to hepatitis virus type B were examined by analyzing prevalence rates of hepatitis B antigen (HBsAg) and its antibody (antiHBs) in an area of Papua New Guinea hyperendemic for the virus. By use of multivariate techniques, extraneous variables known to be correlated with both leprosy severity and HBsAg prevalence, such as institutionalization, age, sex and place of residence, could be statistically controlled. In multivariate analysis of HBsAg rates, after removal of the variation due to age, which was the most important single factor contributing to HBsAg carrier-status, lepromatous leprosy was a significant determinant of antigenemia. Similarly, when the series was grouped into three immune-response categories of HBsAg, anti-HBs or no serologic evidence of exposure to the virus, disease severity was a significant factor in determining immune response. For lepromatous and borderline lepromatous patients, the probability of responding antigenically to the virus, given that some measurable response has occurred (HBsAg/ (HBsAg + anti-HBs) was 0.42. The corresponding probability for tuberculoid patients was 0.25 and for healthy controls, 0.29. These probabilities indicate that lepromatous patients have an impaired immune response that not only predisposes them to the most severe form of leprosy but may also decrease their efficiency in terminating HBsAg infection with anti-HBs.

Authors' summary

SHER, R.; ANDERSON, R.; GLOVER, A.; WADEE, A.A. Polymorphonuclear cell function in the various polar types of leprosy and erythema nodosum leprosum. *Infect. Immun.*, 21(3) :959-965, 1978.

Polymorphonuclear leukocyte motility, both vivo and in vitro, and reduction of Nitro Blue Tetrazolium was studied in tuberculoid and lepromatous leprosy patients and a group of lepromatous patients with erythema nodosum leprosum (ENL). A profound defect in random migration, chemo-taxis, and chemokinesis was found in lepromatous patients with and without compli-

eating ENL, and marked depletion of skin window migration confirmed these in vitro findings. Tuberculoid patients exhibited a mild defect in polymorphonuclear leukocyte motility. Serum inhibitors of normal polymorphonuclear leukocyte chemotaxis were found in all types of leprosy, but sera from lepromatous and ENL patients were most inhibitory. Resting levels of Nitro Blue Tetrazolium reduction were normal in all three groups. Reconstitution of polymorphonuclear leukocyte cells from normal and ENL patients with ENL serum, however, showed increased Nitro Blue Tetrazolium reduction well above the normal range, whereas reconstitution with normal, lepromatous, and tuberculoid sera failed to increase Nitro Blue Tetrazolium reduction above the normal values.

Authors' abstract

SHER, R.; MACKAY, M.E.; MACNAB, G.M.; KOK, S.H.; KOORNHOF, H.J. Hepatitis B antigen, hepatitis B antibody, and subtypes in leprosy. *Infect. Immun.*, 17(1) :1-3, 1977.

The prevalence of hepatitis B antigen (HBsAg), hepatitis B antibody (HBsAb), and subtypes in 242 cases of leprosy is reported. Patients were divided into three subgroups, lepromatous (174), tuberculoid (55), and borderline (13). A total of 131 patients were tested on admission; the remaining 111 had been institutionalized for a period of 3 months or more when tested. Of the 131 cases tested on admission, 88 were retested 6 to 12 months after admission. There was no statistical difference in the incidence of HBsAg and HBsAb among the three groups or between normal controls and the leprosy patients. The predominant subtype was ADW (84.1%). After institutionalization, one lepromatous case converted to HBsAg positive and four converted to HBsAb positive.

Authors' abstract

SKINSNES, O.K. Lepromin and the Arthus reaction Editorial. *Int. J. Lepr.*, 45(4): 373-376, 1977.

STONER, G.L.; TOUW, J.; BELEHU, A.; NAAFS, B. *In-vitro* lymphoproliferative response to *Mycobacterium leprae* of HDL-D-identical siblings of lepromatous leprosy patients. *Lancet*, 2(8089): 543-374.476, 1977.

Lymphoproliferative responses to *Mycobacterium leprae* and P.P.D. were measured in 23 lepromatous and borderline lepromatous leprosy patients and in 27 of their normal siblings. At the same time siblings HLA-D-identical with the patients were identified by the absence of a mixed-lymphocyte reaction. The 7 siblings who were HLA-identical to lepromatous patients responded as well to *M. leprae* as did the 20 HLA-non-identical normal siblings. In contrast, 22 of the 23 lepromatous patients failed to respond to *M. leprae* but responded normally to P.P.D. The specific unresponsiveness of lepromatous patients thus does not result from an HLA-linked genetic defect and the defective cell-mediated immune response to *M. leprae* seems to be acquired, not inherited. Lepromatous patients may be high responders to antigen shared by *M. leprae* and other microorganisms in whom a strong antibody response has blocked the induction of an *M. leprae* specific cell-mediated immune response.

Authors' summary

TALWAR, G.P.; HANJAN, S.N.S.; MEHRA, V. L.; KIDWAI, Z. Lack of interaction of circulating T cells with phytohemagglutinin in bacillary positive untreated lepromatous leprosy patients. Identification of subpopulation of lymphocytes by shifts in electrophoretic mobility. *J. Immunol.*, 118(1) :242-247, 1977.

Incubation of human peripheral blood lymphocytes from normal healthy subjects with phytohemagglutinin (PHA), causes the reduction of the surface charge of a subpopulation of T cells by 1363 ± 242 e.s.u./ cm^2 . The affected subpopulation was predominantly the high charge-bearing cells identifiable with early (10 min) rosette-forming cells with sheep erythrocytes. Purified lymphocytes obtained from untreated bacillary-positive, lepromatous leprosy patients contained high charge-bearing T lymphocyte subpopulation. However, incubation with PHA did not result in the shift of electrophoretic mobility of these cells, suggesting the absence of interacting sites for the mitogen on the surface of these cells. The absence of mitogen-interacting sites is not an inherent trait of leprosy patients; the surface charge of lymphocytes from Dapsone-treated bacillary-negative subjects was reduced upon incubation with PHA. A close correlation was found between the

number of cells whose charge alters on incubation with PHA and the transformation index obtained with this mitogen.

Authors' abstract

TARABINI, C.G.; NUTI, M.; TARABINI, C.G.L. Lebbra e mycobatteri atipici: 2) Studio sulle lebbroreazioni provocate da sensitive tubercolari tipiche ed atipiche in casi di lebbra lepromatosa. *Acta Leprol.*, (68) :35-44, 1977.

Groups of patients with lepromatous (57 cases) and tuberculoid (24 cases) leprosy have been skin-tested with a series of antigens from *M. tuberculosis*, *M. scrofulaceum*, *M. xenopei*, *M. africanum*, *N. farcinica*, *N. otididis*.

It was found that a reactional state with erythema nodosum leprosum occurred in 15 lepromatous cases after skin testing; these patients, and other 23 lepromatous patients who also have had a reactional state in the previous course of the disease, have shown after skin testing a more severe reaction with painful swellings, vesicles and bullae at injection sites and ulceration in 5 cases; such severe skin reaction with ulceration also occurred in 3 cases of tuberculoid leprosy. The percentages of positive reaction in the group of the 19 lepromatous patients who have never shown, before or after skin testing, a reactional state were the lowest (with a mean size of 11,1 mm for

M. tuberculosis and 6,6 mm for *M. africanum*) among each group tested with the mycobacteria antigens:

- a) patients with tuberculoid leprosy (the mean size was 19,8 mm for *M. tuberculosis*; 11,5 mm for *M. africanum*);
- b) patients with pulmonary tuberculosis (mean size 12,4 mm for *M. tuberculosis*; 9,9 mm for *M. africanum*);
- c) controls (mean size 13,8 mm for *M. tuberculosis*; 14,0 mm for *M. africanum*).

Authors' summary

YAMADA, M. & FUJIMOTO, F. Lymphocyte transformation using Mitsuda antigen (lepromin). *J. Dermatol.*, 2 :175-178, 1975.

A lymphocyte transformation test was performed adding Mitsuda antigen (lepromin) to the lymphocyte culture from the peripheral blood of 4 leprosy patients (9 borderline lepromatous and 2 lepromatous ones) and 6 control persons (1 Kimura disease patient, 1 kerion celsi patient, 2 latent syphilis patients and 2 normal controls). All 4 leprosy patients showed negative results, while 1 to 3% blast cells were observed in 5 of the control cases; the one case with Kimura disease showed a negative result. Only 12 to 21% blast cells stimulated by PHA were observed in the lepromatous patients.

Authors' abstract

PATOLOGIA, FISIOPATOLOGIA, BIOQUÍMICA
PATHOLOGY, PHYSIOPATHOLOGY, BIOCHEMISTRY

ANDERS, R.F.; PRICE, M.A.; WILKEY, I.S.; HUSBY, G.; TAKITAKI, F.; NATVIGS, J.B.; McADAM, K.P.W.J. Amyloid fibril protein AA in Papua New Guinean amyloidosis. *Clin. Exp. Immunol.*, 24: 49-53, 1976.

BERGEL, M. Nutrition and leprosy. Correspondence. *Int. J. Lepr.*, 45(4) :380, 1977.

BHARADWAJ, V.P.; VENKATESAN, K.; RAMU, G.; DESIKAN, K.V. Serum iron and total iron binding capacity in leprosy patients. *Lepr. India*, 50(1): 11-17, 1978.

Serum Iron and Total Iron Binding capacity were estimated on the sera collected

from 45 leprosy patients attending the outpatient department of the Central JALMA Institute for Leprosy, Agra. The sera from 15 healthy subjects were included in the study as controls. Hypoferraemia was observed in lepromatous leprosy and was particularly marked during the reactive phase. Further investigations to elucidate the pathogenesis of anaemia in leprosy are being planned.

Authors' abstract

BODDINGIUS, J. Ultrastructural changes in blood vessels of peripheral nerves in leprosy neuropathy. *Acta Neuropathol.*, 35:159-181, 1976.

Radial or superficial peroneal nerve biopsies of 6 patients with tuberculoid or borderline-tuberculoid leprosy and 6 control nerve biopsies were examined by electron microscopy. Endoneurial blood vessels showed histopathology in all the leprosy patients. Changes, in particular, involved the basement membrane in postcapillary venules and venules. Multilayered parallel basement membranes, with collagen and ground substance, formed a thick coat ("hyaline zone") around the vessels. It is suggested that the zone inhibits passage of nutrients and metabolites and, thus, contributes to or is the main cause of the local destruction of (unmyelinated) nerve fibres and the lack of nerve fibre regeneration observed in this type of leprosy. The peri-vascular zone, presumably, is produced by pericytes in response to defects in the "blood-nerve barrier" of endoneurial vessels. Ingranulomata of leprosy skin lesions, a perivascular zone was not present.

The endothelium of endoneurial vessels, in affected nerves, generally was normal. Occasionally, however, gaps and fenestrations were seen and there were histological indications that leakage of blood plasma had occurred through the gaps and through the basement membrane of the endothelium.

Occlusion of endoneurial vessels was found only in the oldest patient and the degeneration of nerve fibres generally observed thus is considered not to be caused by ischaemia. Histopathology in epi and perineurial vessels was definitely less pronounced than in endoneurial vessels.

Author's summary

BONNAUD, E.; RIVEL, J.; VITAL, C.; BRECHENMACHER, C.; HEDREVILLE, M.A.; KHATIB, M. Etudes du nerf périphérique en microscopie électronique. *Bord. Med.*, 11(20):1757-1762, 1978.

The electron microscope allows the *analysis* of elementary lesions of the peripheral nerve: segmentary demyelination, wallerian degeneration and bulb type image, non-specific images already observed in serial histologic sections. Specific images during peripheral neurologic disease are seldom observed, but when present give precisions as to the etiology: during a predominating interstitial disease; during polyradiculonevritis: acute Guillain-Barré syndromes, relapsing and symptomatic polyradiculonevritis; during familial and hereditary

diseases; during toxic and metabolic diseases.

Authors' summary

CAMPOS, M.P. Sinovite hansênica. Mogi das Cruzes, 1977. 62p. /Tese — Faculdade de Medicina da Universidade de Mogi das Cruzes/

Estudando trinta pacientes portadores de Hanseníase, escolhidos ao acaso e divididos em dois grupos de quine cada um, sendo um grupo constituído de pacientes em pleno surto reacional de eritema nodoso ou de eritema polimorfo, e outro constituído de quinze pacientes sem reação específica, após biopsia da membrana sinovial do joelho, o exame histológico permite concluir que existe um processo inflamatório de caráter específico. Optamos pela designação de sinovite hansênica, uma, vez que indica a especificidade e obedece às normas atuais da nomenclatura.

Conclusões do autor

FLIESS, E.L. Inmunogenética y lepra. *Boi. Inf. Soc. Argent. Leprol.*, 2(5) :32, 1978.

FURUTA, M.; OZAKI, M.; HARADA, N.; MATSUMOTO, S.; NAGAO, E.; SUGIYAMA, K.; OGASAWARA, T.; MATSUMOTO, Y. Frequency of cerebrovascular lesions in leprosy. *Jap. J. Leprosy*, 47(2): 61, 1978.

One hundred and twenty seven patients died in Komyo-en Leprosarium between 1962, January, and 1971, June. Autopsy was done on 110 cases. The average age was 62.5 years old. Malignant neoplasms (33 cases) were more frequent than cerebrovascular diseases (hemorrhage: 9 cases, softening: 3, microscopic hemorrhage: 11). The major direct cause of death was bronchopneumonia. Investigation of the death certificates in Seisho-en Leprosarium for the years 1967-1976 also revealed that cerebrovascular diseases were not the major cause of death. These results are different from informations of the cause of death in Japan published by the Ministry of Health and Welfare. This discrepancy probably comes from inaccurate description of the death certificates and low autopsy rate in this country.

From authors' abstract

GUPTA, J.C.; PANDA, P.K.; SHRIVASTAVA, K.K.; SINGH, S.; GUPTA, D.K. A histopathological study of lympho-

des in 43 cases of leprosy. *Lepr. India*, 50(2):196-203, 1978.

Eighty cases of leprosy including 60 cases of lepromatous type and 20 cases of tuberculoid type, during the period of 1974-75, have been examined for evidence of lymphnode enlargement. Of the 52 cases of enlarged lymphnodes, lymphnode biopsy was done in 43 cases including 38 cases of lepromatous type and 5 cases of tuberculoid type. The lymphnodes have been studied for evidence of any pathological changes and presence of acid-fast bacilli. In cases of lepromatous leprosy, lepromas and acid-fast bacilli were seen in 92.2 per cent of the cases and patchy fibrosis was noted in 23.6 per cent of the cases. **No amyloid** could be demonstrated. In cases of tuberculoid leprosy, only non-specific reticular hyperplasia was noted. No specific granuloma or acid-fast bacilli could be demonstrated. The findings have been described in detail and discussed in the light of previous published data.

Authors' abstract

HITZEROTH, H.W.; WALTER, HIL- L, M. Genetic markers and leprosy in South African negroes: Part I. Serum protein polymorphisms. *S. Afr. Med. J.*; 54(16):653-658, 1978.

The phenotype frequencies of the serum protein polymorphisms Hp, Gc, Tf, Gm and Inv were determined on a sample of 2500 South African Negroes with leprosy. These results were compared with data derived from 918-977 (depending on the polymorphism tested) healthy Negro controls of similar geographical and ethnic origin, in order to determine whether or not any association existed between specific phenotypes and the occurrence of leprosy. The data derived from the present study were also compared with those of similar comparative analyses on African and non-African populations. Because of the contradictory results between samples with regard to the polymorphisms Hp, Gc and Inv, an association of any of these phenotypes with leprosy appears to be highly improbable. With regard to the polymorphisms Tf and Gm, however, such associations cannot be ruled out. The questions arising from the results are discussed.

Authors' summary

KARAT, A.B.A. & RAO, P.S.S. Haematological profile in leprosy: Part II — Relationship to severity of disease and treatment status. *Lepr. India*, 50(1):18-25, 1978.

321 adult male lepromatous leprosy patients were studied for relationship between haematological findings, severity of disease and duration of treatment. Significant changes were noticed in relation to haemoglobin concentration, serum vitamin B12 and serum folate levels, serum albumin and globulin. No significant changes were observed in serum iron levels in relation to disease and treatment status. With rising bacterial load, there was a trend towards lower haemoglobin concentration, higher vitamin B12 level and lowered serum folate levels. Serum albumin showed a significant decline, while serum globulin showed a significant rise. The findings are discussed in relation to replacement of bone marrow by lepromatous tissue as well as possible interference in the metabolism of haematinics by *M. leprae*. The exact mechanism of neurological deficit in leprosy in relation to deficiency of vitamin B12 and folic acid need to be further elucidated.

Authors' abstract

KONDO, E. & KANAI, K. A suggested role of host-parasite lipid complex in mycobacterial infection. *Jap. J. Med. Sci. Biol.*, 29(4):199-210, 1976.

KORANNE, R.V.; SINGH, R.; IYENGAR, B. Bone-marrow in tuberculoid leprosy. *Lepr. India*, 50(2):181-184, 1978.

Twenty-four untreated patients of proved tuberculoid leprosy and five healthy controls were investigated for the involvement of bone-marrow. The cytology was essentially normal and non acid-fast bacilli was seen in the bone-marrow smears.

MALIK, S.K.; KHER, V.; KUMAR, B.; KAUR, S. Impaired cough-receptor function in leprosy. Letter to the Editor. *Lancet*, 1(8073):1094-1095, 1978.

We infer that the cough response is impaired in leprosy patients because of involvement of the afferent vagal fibres supplying the irritant receptors. The involvement must be diffuse throughout the respiratory tract because ultrasonically nebulised aerosols do reach the peripheral parts of the lung. We are now investigating other vagal nerve functions in this disease.

From the letter

MOLERES, R. Bone absorption in HD. *Star*, 37(2) :3, 1977.

Infection with *M. leprae* affecting the periosteum, cortex and medulla of bone tissue, as well as involvement of joint synovium and articular cartilage are the source of various patterns of development of bone absorption in HD.

Author's summary

NAAFS, B. & DAGNE, T. Sensory testing: a sensitive method in the follow-up of nerve involvement. *Int. J. Lepr.*, 45 (4) :364.368, 1977.

Sensory testing (ST) as a parameter in assessing nerve damage and as a guide in antireaction treatment is discussed in comparison with established methods like voluntary muscle testing (VMT) and motor nerve conduction velocity (MCV). Sensory testing is shown to be a valuable addition to the existing tests and may even be used as a single parameter. Authors' summary

NIGAM, P.; DAYAL, S.G.; GOYAL, B.M.; NIMKHEDAKAR, K. V. ; JOSHI, L.D.; SAMUEL, K.C. Leprous hepatitis: clinico-pathological study and therapeutic efficacy of Liv 52. *Lepr. India*, 50(2): 185-195, 1978.

Fifty cases of leprosy were studied for clinico-biochemical and histological features pertaining to hepato-biliary system involvement. Therapeutic efficacy of an indigenous drug Liv 52 was also studied for its hepatic restorative and protective effects in leprosy hepatitis. Specific granulomatous lesions suggestive of leprosy hepatitis was mainly seen in lepromatous leprosy (40%). Granulomata in liver were seen in all types of leprosy (70%). Some of the hepatic lesions progressed to stellate fibrosis and early cirrhotic changes (40%). Functional derangement was the main feature in lepromatous cases irrespective of the extent and duration of the disease. Uniform elevation of normal level of total serum proteins was mainly due to increase in serum globulin with reversal of A:G ratio, indicating deranged hepatocyte function and hyperplasia of reticulo-endothelial cells. Hyperbilirubinoemia (highest level of serum bilirubin = 5.6 mg%) was chiefly seen in lepromatous leprosy. A study to evaluate the efficacy of treatment of leprosy hepatitis with an indigenous drug "Liv 52" was also undertaken in these 50 cases — 20 cases served as control and 30 cases received Liv. 52 along with the antileprosy drug. The clini-

cal and biochemical with histopathological response was significant in Group A (Liv 52 treated cases) as it cut short the duration, course and severity of the disease and showed remarkable improvement towards normal values without any untoward side-effects. We feel that Liv 52 richly deserves to be used as a routine treatment specially in all cases of lepromatous leprosy, as incidence of hepatobiliary system involvement is much more in our county.

Authors' abstract

NIGAN, P.; MUKHIJA, R.D.; GOYAL, B. M.; JOSHI, L.D.; SAMUEL, K.C. Study of histo-functional complex of liver in leprosy. *Ind. J. Dem. Venereol. Leprol.*, 42(5) :217-222, 1977.

Seventy six cases of diferente types of leprosy, with varying duration of illness, were studied for their changes in liver function and hepatic lesions. Specific granulomatous lesion suggestive of lepromatous hepatitis were mainly seen in lepromatous leprosy (17 cases out of 28 cases of leprosy). Granulomata in liver were present in all types of leprosy. Some of them had progressed to stellate fibrosis (7 cases) and early cirrhotic changes (6 cases) Non-specific changes were seen in 22 cases, of which 6 (3 lepromatous) showed stellate fibrosis with attempt to incomplete lobule formation. Amyloid deposits were not seen in any of these cases. Functional derangement has been noted mainly in lepromatous patients irrespective of the extent and duration of the disease. There was a uniform elevation of total serum proteins (6.4 9.2 gms%) mainly due to increase in serum globulin (2.2-4.0 gms%). Serum albumin was lower than normal (2.6-5.2 gms%). Thymol turbidity showed abnormal results (3-9 units) and serum cholesterol (102-206 mg%) levels were low. Other biochemical estimations were normal.

Authors' summary

RATNAKAR, K.S. & MOHAN, M. Amyloidosis of the iris. *Can. J. Ophthalmol.*, 11: 256-257, 1976.

REA, T.H. & TAYLOR, C.R. Serum and tissue lysozyme in leprosy. *Infect. Immun.*, 18(3):847-856, 1977.

Mean serum lysozyme values were found to be elevated in untreated leprosy patients. Statistically significant elevations were

present in each of the three major categories of leprosy, tuberculoid, borderline, and lepromatous. Values were particularly high in patients with severe reversal reactions or Lucio's phenomenon. Prolonged sulfone therapy was associated with a fall in serum lysozyme values. With an immunoperoxidase method to localize lysozyme in leprosy tissues, two distinct staining patterns were found, granular and saccular. The granular pattern of lysozymal staining was found in epithelioid cells and in giant cells, and the intensity of staining showed a positive correlation with serum lysozyme levels. Conversely, a saccular pattern of lysouymal staining was found in lepromatous histiocytes, but the intensity staining was unrelated to serum lysozyme levels, the saccular structures contained dense aggregates of *Mycobacterium legrae*. These two patterns of staining probably represent different functional responses of monocyte-derived granuloma cells, whereas the serum levels reflect, to a varying degree, both the absolute number of such cells and the rate of secretory activity of this cell population as a whole.

Authors' abstract

ROSTANT, M. Dégénérescence épithéliomateuse des plaques, ulcères et maux perforants plantaires chez les lépreux. *Acta.* (73):29-38, 1978.

Sans vouloir entrer dans des considérations étio-pathogéniques, il est bon de rappeler que les troubles trophiques du lépreux sont dus à une ischiémie consécutive à des facteurs vasculo-nerveux, favorisés par des phénomènes traumatiques ou infectieux. Mais nous savons qu'il existe aussi, chez le lépreux, un déficit immunitaire, notamment des cellules thymo-dépendantes, déficit qu'on retrouve d'ailleurs en cancérologie. Dès lors, on peut se demander si le lépreux, dépourvu du facteur de Rotberg, c'est-à-dire de moyens de défense naturelle, n'offrirait pas un terrain favorable aux transformations épithéliomateuses. En effet, jusqu'ici, nous réservions le traitement par les immunostimulants aux seuls malades lépreux présentant des états de résistance à la thérapie spécifique anti-Hansénienne. Ainsi, les cas que nous publions, n'avaient jamais reçu de médication immuno-stimulante.

Commentaires de l'auteur

Six cases of epitheliomatous degeneration, among which five spino-cellulars and

one baso-cellular, happened among leprosy patients showing sores, ulcerations and planter ulcers, are quoted in this study. Here, the authors underline the favorable part of the defects of cellular immunity for the leprosy pathogenesis, and the need of using histological exams systematically when noticing any continued delay of cicatrization. An immuno-stimulating medication should be used for any leprosy patient showing obstinate trophical troubles.

Author's summary

SEBILLE, A. Respective importance of different nerve conduction velocities in leprosy. *J. Neurol. Sci.*, 38: 89-95, 1978.

Motor and sensory nerve conduction studies were performed in the distal part of the ulnar, median and radial nerves of 12 tuberculoid and 12 lepromatous leprosy patients, compared with 15 normal subjects. Slowing of sensory conduction velocity (SCV) was shown in all nerves with no difference between tuberculoid and lepromatous patients. The radial SCV slowing is correlated ($P < 0.001$) with the clinical findings. Impairment of motor distal latencies was observed only in tuberculoid patients. It is concluded that the radial SCV is the most reliable conduction test and is proposed as an early diagnostic test for leprosy.

Authors' summary

SHARMA, S.; SARIN, R.C.; PARKASH, S. Secondary amyloidosis in leprosy (a case report). *Indian J. Dermatol. Venereol. Lepr.*, 44(1):31-33, 1978.

A case of amyloidosis secondary to lepromatous leprosy has been discussed. He had proteinuria, Congo red retention 64 per cent (first hour), hyperglobulinaemia, and renal biopsy revealed amyloid deposits. Factors responsible for amyloidosis are highlighted.

Authors' summary

SINHA, S.N.; GUPTA, S.C.; BISHT, D. Serum calcium and magnesium in different types of leprosy. *Lepr. India*, 50(1):54-56, 1978.

Serum calcium and magnesium were studied in 200 leprosy patients and 25 apparently healthy individuals. Serum calcium was found to be significantly decreased in all types of leprosy except tuberculoid. The

decrease in serum magnesium was highly significant in tuberculoid, lepromatous and borderline lepromatous cases.

Authors' abstract

VARMA, K.C.; KUMAR, R.; BHARGAVA N.C. Histopathological study of liver in leprosy. *Indian J. Dermat. Venereol. Leprol.*, 44(2):108-109, 1978.

Fifty patients with lepromatous leprosy were studied. Involvement of liver was observed in 90 per cent of the cases. Fatty degeneration was seen in two cases only. Amyloid deposit was not seen in any of them.

Authors' summary

VENKATESAN, K. & BHARADWAJ, V.P. Sequential biochemical investigations in lepromatous leprosy. *Lepr. India*, 50(2):166-172, 1978.

Sequential biochemical investigations were conducted in cases of lepromatous leprosy in the reactive as well as subsided phases. Low levels of blood sugar and serum cholesterol were indicated in the reactive phase of lepromatous leprosy. Significant increase in thymol turbidity and de-

crease in A/G ratio were noted in most of the cases of lepromatous leprosy. Enhancement of serum levels of transaminases was observed in the reactive phase of lepromatous leprosy. Serum protein electrophoresis indicated increases in a globulin and r-globulin and decrease in albumin in the reactive as well as subsided phases. The results are discussed in this paper.

Authors' abstract

WESTERHOF, W. A possible dysfunction of melanosome transfer in leprosy: an electron-microscopic study. *Acta Dermatol-Venereol.*, 58(4):297-304, 1977.

An E.M. study was carried out to investigate whether *Mycobacterium leprae* occur intracellularly in epidermal melanocytes. As this could not be confirmed, the selective killing of melanocytes by cytotoxic lymphocytes could not explain the hypopigmentation in types of 1 leprosy with a relative good immune response. There were indications that these hypopigmented lesions resulted from a disturbed transfer of melanosomes from melanocytes to keratinocytes. Further research is in progress

Author's abstract

HANSENIASE EXPERIMENTAL, LEPROSIS ANIMAL EXPERIMENTAL HANSENIASIS, ANIMAL LEPROSIS

ALEXANDER, J. & SMITH, C.C. Growth of *Mycobacterium lepraemurium* in nonstimulated and stimulated mouse peritoneal-derived and bone marrow-derived macrophages *in vitro*. *Infect. Immun.*, 22(3):631-636, 1978.

Mycobacterium lepraemurium cells were found to multiply in normal mouse peritoneal-derived and bone marrow-derived macrophages *in vitro*. Whereas activated peritoneal-derived macrophages demonstrated marked bacteriostasis for *M. lepraemurium*, significant bactericidal activity was exhibited by activated bone marrow-derived macrophages. However, only a small proportion of the bacteria were killed by activated bone marrow-derived macrophages with subsequent and enhanced bacterial growth. It is suggested that a rapid turnover of monocytes in active lesions is required to control mycobacterial infections *in vivo*. These results would suggest that

careful consideration be given to the choice of the host cell in studies involving obligate intracellular parasites.

Authors' abstract

BAPAT, C.V. & MODAK, M.S. Growth of the ICRC bacilli in the foot-pad of mice. *Lepr. India*, 50(2):144-155, 1978.

The ICRC bacilli are acid-fast bacilli cultivated from *M. leprae* isolates of lepromatous tissue. The ICRC bacilli from C-44 in the conditioned medium were subjected to foot-pad test, in both normal and T/900r mice. The bacilli exhibit a limited multiplication in normal mice while a continuous growth in T/900r mice. The maximum yield for normal and T/900r mice, was 10^7 and 10^9 foot-pad, respectively. The infiltration of voluntary muscle tissue as the main localization site was common for both normal and T/900r mice with evidence

of dissemination in the latter. The spread of APB to sciatic nerve, induction of liver granuloma and the foot-drop was observed only in T/900r mice. These experiments shown that the growth of ICRC bacilli in mouse foot-pad is very similar to that of *M. leprae* confirming a test for identification.

Author's abstract

BEDI, B.M.S. Is there leprosy-like disease in wild armadillos? Editorial. *Indian J. Dermatol. Venereol. Lepr.*, 44(1): 1-2, 1978.

DELVIL^{LE}, J.; PICHEL, A.M.; BOUCKAERT, A. Influence de la penicillin sur l'infection experimentale à *Mycobacterium leprae* chez la Souris. *Ann. Soc. Beige. Med. Trop.*, 58(2) :125-131, 1978.

After a brief survey of the literature on the use of penicillin as a therapeutic agent in leprosy, the influence of this drug on the experimental. *M. leprae* infection of mice is investigated. Statistically significant reduction of *M. leprae* is observed in penicillin treated mice. The infection develops normally again after stopping of treatment. This is in accordance with a bacteriostatic effect of penicillin.

Authors' summary

DHARMENDRA. The question of leprosy in wild armadillos. Editorial. *Lepr. India*, 50(2) :126-130, 1978.

So far we have all been believing and saying that a patient of leprosy is the only source of infection and that there is no animal reservoir. However, the present discussion going on in lay press on the presence of leprosy or leprosy-like disease in feral armadillos is likely to shake the belief of an increasing number of the public. The matter, therefore, urgently needs an independent investigation. Moreover, the doubt may not remain confined to armadillos, but may be extended to some other rodents which may be found harbouring some acid-fast bacilli. Such a view if not confirmed by experimental work is likely to cause an alarm in the public about the possibility of transmission of leprosy from armadillos to the human beings, although this looks improbable. However, public alarm and scare is not always based on proved scientific facts. The flesh of armadillo is popu-

larly eaten and relished in the Americas; but it is understood that some alarm has already been caused and people are now getting scared of eating armadillo flesh. The undersigned, therefore, repeats his plea that the matter should be taken up for independent investigation at a high level by experienced workers so far unconnected with the work on the subject, and that all aspects of the matter should be investigated including the possible sources of infection in the armadillos in which leprosy or leprosy-like disease has been reported in feral armadillos.

From the editorial

GOIHMAN-YAHR, M.; CONVIT, J.; RODRIGUEZ-OCHOA, G. ARANZAZU, N.; VILLALBA-PIMENTEL, L.; OCANTO, A.; GÓMEZ, M.E. Significance of neutrophil activation in reactional lepromatous leprosy: effects of thalidomide *in vivo* and *in vitro*. Activation in adjuvant disease. *Int.-Arch. Allerg. Appl. Immunol.*, 57:317-332, 1978.

HOBBS, H.E.; HARMAN, D.J.; REES, R.J.W.; McDOUGALL, A.C. Ocular histopathology in animals experimentally infected with *Mycobacterium leprae* and *M. lepraemurium*. 1. *Mycobacterium leprae* and *M. lepraemurium* infections in the mouse. 2. *Mycobacterium leprae* infections in the 9-banded armadillo (*Dasypus novemcinctus* L.) *Brit. J. Ophthalmol.*, 62(8) :516-524, 1978.

At varying periods of time following the successful establishment of systemic infections with *Mycobacterium leprae* or *M. lepraemurium* in the mouse and the nine-banded armadillo eyes were examined by light microscopy. Inoculation of bacilli was by the intravenous or intraperitoneal route or directly into the hind footpads; eyes were not directly inoculated in this study. During periods of up to 3 years under laboratory conditions no animal showed evidence of impaired vision or blindness, and the external appearance of both eyes was normal. The ocular histopathology and the sites of accumulation of bacilli are described. In immunologically normal mice infected with *M. lepraemurium* bacilli were much commoner in extraorbital tissues, but they were, nevertheless, found in various tissues within the orbit, including the ciliary body and sclera. In immunologically normal mice (and one rat) injected with *M. leprae*

of human origin no bacilli were found in the eye, but in mice immunologically depressed by thymectomy and total body irradiation considerable numbers of bacilli were present in the iris and ciliary body and also in the timbal cornea. In the armadillo bacilli were found in large numbers in virtually all tissues except the lens, retina, optict nerve, and aqueous and vitreous humours, but the uveal tract was heavily involved. Findings are discussed in relation to the great frequency of ocular involvement and the importance of immune-complex disease in patients with lepromatous leprosy, and to factors which may favour the localisation and multiplication of *Mycobacterium leprae* in the eye.

Authors' summary

KAWAGUCHI, Y.; MATSUOKA, M.; KAWATSU, K. Pathogenicity of cultivated murine leprosy bacilli of Hawaii-Ogawa strain in mice. *Japan. J. Exp. Med.*, 48(1):17-26, 1978.

KAWAGUCHI, Y.; MATSUOKA, M.; KAWATSU, K. Pathogenicity of cultivated murine leprosy bacilli in mice. 2. The pathogenicity of bacilli from smooth colonies. *Japan J. Exp. Med.*, 48(3): 211-217, 1978.

KIRCHHEIMER, W.F. Experimental transmission of HD world-wide. *Star*, 37(3): 3, 1978.

KIRCHHEIMER, W.F. & SANCHEZ, R.M. Examination of North American armadillos for mycobacteriosis. *Lepr. India*, 50(2): 156-160, 1978.

1. Between 1 January 1974 and 31 December 1977, Carville has found no leprosy-like mycobacteriosis in 373 armadillos. Two hundred eighty-two of these armadillos were caught in Louisiana, 78 in Florida and 13 in Texas. 2. Seventy-five of the Louisiana armadillos were caught by personnel from the Louisiana Wildlife and Fisheries Commission in the area where Walsh *et al* said they found 10 per cent "naturally" infected armadillos. 3. Two hundred and seven of Carville's armadillos came from the most human-leprosy prevalent part of Louisiana. 4. Alleged claim of man to armadillo transmission of leprosy as an explanation for existence of leprosy armadillos in nature also is at odds with South American findings and conditions 5. Independent verifi-

cation of the claim of Walsh *et al* is called for and if confirmed investigation of the various possible ways such a situation might have arisen.

Authors' summary

KNIGHT, V. Leprosy-like disease in nine-banded armadillos. *Star*, 37(3) :10, 14, 1978.

MATSUO, Y.; UTSUNOMIYA, S.; KAJIHARA, N.; KIM, S.K. Combinations of rifampicin and isoprodian in the treatment of *Mycobacterium leprae* infections in mice. *Jap. J. Leprosy*, 47(1): 43-47, 1978.

Combinations of rifampicin and isoprodian were tested against *Mycobacterium leprae* in mice. Drugs were given by gavage once tinely, 6 times per week, starting from the day of infection to day 21 after infection in the first experiment, and from day 51 to day 80 after infection in the second experiment. Although a few combinations had some increases of the growth delay over single drugs, it is not likely that appreciably additive effect of the both drugs has been noticed in the treatment of *M. leprae* infections in mice.

Authors' abstract

MINAGAWA, F.; YOSHINO, Y.; ABE, M. Early immune responses in nude mouse following intravenous injection of *Mycobacterium leprae*. *Jap. J. Leprosy*, 47(1): 37-42, 1978.

OGAWA, T. Observations on a case of supposed contamination with another acid-fast bacillus. I. The isolation culture of contaminated acid-fast bacillus and in *vitro* examination of isolates. *Jap. J. Leprosy*, 47(1): 37-42, 1978.

OGAWA, T. Observation on a case of supposed contamination with another acid fast bacillus. II. In vivo examination of isolates (Bacillus n.' 4). *Jap. J. Lepr.*, 47(2), 1978.

PATEL, P.J.; & LEFFORD, M.J. Induction of cell-mediated immunity to *Mycobacterium leprae* in mice. *Infect. Immun.*, 19(1):87-93, 1978.

The immune response of mice to armadillo-derived, irradiation-killed *Mycobacterium leprae* (I-ML) was investigated. Follow-

ing injection of 100 µg of I-ML into the left hind footpads of mice, a state of cell-mediated immunity (CMI) was engendered to antigens of *M. leprae*. The evidence for CMI was as follows: (i) development of delayed-type hypersensitivity to both human tuberculin purified protein derivative and soluble *M. leprae* antigens; (ii) T-lymphocyte-dependent macrophage activation at the inoculation site; (iii) specific systemic resistance to the cross-reactive species *M. tuberculosis*; and (iv) immunopotentialion of the delayed-type hypersensitivity response to an unrelated antigen. The CMI induced by I-ML in aqueous suspension was greater than that obtained with the same antigen in water-in-oil emulsion, even though the latter generated a more severe reaction at the site of immunization. I-ML also induced a stronger CMI response than the corresponding dose of heat-killed BCG.

Authors' abstract

PATEL, P.J. & LEFFORD, M.J. Specific and nonspecific resistance in mice immunized with irradiated *Mycobacterium leprae*. *Infect. Immun.*, 20(3): 692-697, 1978.

Following subcutaneous inoculation of irradiated *Mycobacterium leprae* (I-ML) into the left hind footpad of mice, there was increased resistance to *Listeria monocytogenes*, indicative of macrophage activation, at the immunization site. In spite of the high level of localized macrophage activation which was proportioned to the immunizing dose of I-ML, no such activity could be demonstrated systemically in these mice, as evidenced by the absence of increased resistance to an intravenous challenge with *L. monocytogenes*. Under these conditions, I-ML-immunized mice were nonetheless resistant to intravenous infection with either *M. tuberculosis* or *M. bovis* BCG, and this immunity was transferred to normal recipients using spleen or lymph node cells. Neonatal thymectomy completely abolished the development of antimycobacterial immunity after vaccination with I-ML, but immunity was restored by an intraperitoneal infusion of syngeneic thymocytes. Systemic nonspecific resistance could be generated in I-HL-immunized mice by an intravenous injection of disrupted I-ML. This study reveals that, after subcutaneous vaccination with I-ML, there is local accumulation of activated macrophages at the inoculation site and a widespread distribution of lymphocytes which are sensitized to mycobac-

terial antigens. Nonspecific resistance is mediated by the former cells and specific antimycobacterial immunity by the latter.

Authors' abstract

POULTER, L. W. & LEFFORD, M.J. Relationship between delayed-type hypersensitivity and the progression of *Mycobacterium lepraemurium* infection, *Infect. Immun.*, 20(2): 530-540, 1978.

The relationship between the level of delayed-type hypersensitivity (DTH) and the progression of *Mycobacterium lepraemurium* infection was examined after inoculation of mice with 108 *M. lepraemurium* in the left hind footpad. The expression of DTH developed over the first 4 weeks of infection, remained high up to week 8, and then dropped to a low level at which it remained for 12 more weeks. The development of DTH was concordant with an initial swelling of the inoculated foot, the appearance of a mononuclear infiltrate at this site, and a prevention of any increase in the number of mycobacteria in this foot and in other tissues studied. A decay of DTH reactivity was associated with a progressive increase in the number of *M. lepraemurium* initially at the original site of inoculation and subsequently in all other tissues. Although the expression of DTH was lost, adoptive immunization experiments showed that a population of sensitized lymphocytes persisted within the host. Further experimentation offered evidence to suggest that the level of systemic antigen may be in part responsible for the loss of DTH reactivity.

Authors' abstract

PRABHAKARAN, K.; HARRIS, E.B.; KIRCHHEIMER, W.K. Survival of *Mycobacterium leprae* in tissues kept frozen at 80°C. *Microbios Lett.*, 1(3-4): 193-195, 1976.

Intact organs obtained from armadillos experimentally infected with *Mycobacterium leprae* were kept frozen at -80°C. After approximately ten months of storage, suspensions of *M. leprae* were prepared from these tissues. When inoculated into foot pads of mice, the organisms showed multiplication characteristic of the leprosy bacilli. The results demonstrate that a proportion of *M. leprae* occurring in infected organs are able to survive prolonged exposure to ultracold temperatures.

Authors' abstract

SANCHEZ, R.M. & KIRCHHEIMER, W.F. Examination of North American armadillos for mycobacteriosis. *Star*, 37(3): 10, 14, 1978.

SASIAIN, M.C. Estudios inmunológicos en armadillos. *Bol. Inf. Soc. Argent. Leprol.*, 2(5):31-32, 1978.

SHEPARD, C.C.; WALKER, L.L.; VAN LANDINGHAM, R.M. Immunity to *Mycobacterium leprae* infections induced in mice by BCG vaccination at different times before or after challenge. *Infect. Immun.*, 19(2):391-394, 1978.

Viable suspensions of BCG, an attenuated strain of *Mycobacterium bovis*, have been previously shown to immunize mice against infections with *M. leprae*. Usually, the mice have been vaccinated about 1 month before challenge. Experiments have now been carried out with single intradermal injections of BCG given before or after the *M. leprae* challenge. Approximately equal immunizing effect was seen in one experiment when the BCG was given at -168, -119, -70, and -28 days relative to challenge. Approximately equal protection was observed in another experiment when the vaccine was given at -28, +28, and +56 days. In the latter experiment, however, vaccine given at +91 days appeared to be somewhat less effective. Enlargement of the lymph nodes regional to the intradermal vaccine site persisted for at least the duration of the experiment, approximately 400 days. Thus, antigenic stimulation appears to have continued throughout the period of observation.

Authors' abstract

SHEPARD, C.C.; WALKER, L.L.; VAN LANDINGHAM, R. Heat stability of *Mycobacterium leprae* immunogenicity. *Infect. Immun.*, 22(1):87-93, 1978.

The protection provided to mice by vaccines administered intradermally was measured after footpad challenge with *Mycobacterium leprae*. The protection offered by *M. leprae* suspension was not decreased when the vaccines were killed by 60°C heat or at the higher temperatures tested, which included 215°C (autoclave). Even highly purified suspensions retained their immunogenicity. In contrast, the vaccine protection provided by intradermal *M. bovis* (strain BCG) was markedly reduced when heated to 60°C. The enlargement of the lymph nodes regional to the intradermal vaccines was measured and found generally to parallel the vaccine protection provided by *M. leprae* and by BCG.

Authors' abstract

SUSHIDA, K. Attenuation of drug-treated murine leprosy bacilli to mice. a Examination on acid-fast bacilli isolated from the murine leprosy mice administered with the drugs (*in vivo*). b. Examination on the drug-resistant murine leprosy bacilli (*in vitro*). *Jap. J. Leprosy*, 47(1):13-23, 1978.

SUSHIDA, K. & NAKANO, H. Distribution in pregnant mice of radioactivity after injection of 131I, and immunosuppressive effect by the whole body irradiation. *Jap. J. Leprosy*, 47(1):7-12, 1978.

CLÍNICA, DIAGNÓSTICO CLINICAL ASPECTS, DIAGNOSIS

ALCÓN, R.; ANTOLA, M.; TERRTFS, O.; VAQUERO, N.; MELAMJED, A.J. Cromomicose y lepra. *Temas Leprol.*, 20(61):8-13, 1977.

ANTOLA, M.C. Radiología del pie en la enfermedad de Hansen: el pie neuropático. *Temas Leprol.*, 20(61):14-17, 1977.

ANTOLA, M.C. La iridociclitis reaccional aguda lepromatosa. *Temas Leprol.*, 20(61):23-28, 1977.

AUBERTIN, J.; TEXIER, L.; GENIAUX, M.; TAMISIER, J.M. Maladie de Han-

sen lépromateuse. *Bordeaux Med.*, 11(1):4, 1978.

BALIÑA, L.M.; CHAROSKY, C.B.; KAUFMANN de SWIEC, A.; BALIÑA de VALDEZ, M. Garra cubital iatrogenica por impetuosidad diagnostica. *Rev. Leprol. Fontilles.*, 11(2):145-150,

An ulnas biopsy was practiced to a patient to confirm the diagnosis of leprosy, getting as result an iatrogenic claw hand. As this biopsy has always been dangerous, the authors believe that at the present era of

preventive medicine and prevention of incapacities, ulnar biopsy should not be practiced anymore.

From authors' summary

BARR, R.J.; HERZLINGER, D.C.; CALIF, I. Nevi in leprosy. Letters to the Editor. *Arch. Dermatol.*, 113(8):1131-1132, 1977.

The discovery of *Mycobacterium leprae* within an otherwise normal cellular nevus was not expected, but its occurrence seems reasonable due to the well-known affinity that the organism has for neural crest cells, particularly Schwann's cells. As previously stated, a biopsy should have been taken from normal skin at the time of the removal of the nevus, but the patient was unavailable. It is still unlikely that this finding was just a coincidence since, with the exception of lepromatous leprosy, organisms are not usually found in uninvolved skin. Although this represents only a single case, it is hoped that physicians who see many patients with leprosy will consider examining nevi when organisms may be difficult to find in skin lesions, which is frequently the case in indeterminant or tuberculoid varieties. Such a procedure is considerably less traumatic than nerve biopsies and possibly may prove to be just as useful.

From the letter

BERNARD, J.C. & VILLAGRAN, N. Diagnóstico inicial de lepra por lesiones ganglionares. In: REUNION LEPROLOGICA DEL CONO SUD, 2.^a, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3):131-136, 1977.

Three patients from Paraguay with headache, fever, arthralgias, muscle-pain, splenomegaly and enlarged lymph-nodes were seen. Two of the three patients have also vomiting, diarrhea, colic-pain and abdominal pain. In one of the latter there was also hepatic dysfunction signs, subicteric stain of the skin and choluria. The first case showed a toxic erythema, the second erythema nodosum and the third one had a diagnosis of rheumatic fever. The lymph-node biopsy showed in the three patients a hansenian lymphnode inflammation.

Authors' summary

BEYLOT, C.; BIOULAC, P.; BABIN, B.; DEVARS, D.; BAUDET, J.; LEMAIRE,

J.M. Un cas de lèpre. borderline. *Bordeaux Med.*, 11(1):12-13, 1978.

BRUSCO, C.M. Concepto filosofico que debe aplicarse a una clasificación de lepra. In: REUNION PROLOGICA DEL CONO SUD, 2.^a, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27 (2-3):77-80, 1977.

A critical review of the up-to-date classification of leprosy is made. At the same time the main aspects of a classification directed to those in charge of the control of the disease is given.

Author's summary

CAMPOS, E.P.; GUERRA, J.M.M.; AZEVEDO, M.M.; ASHCAR, H.; MASSIGNANI, A.M.; DELLE, CAVE, J. Cromoblastomicose em paciente com hanseníase. *Rev. Inst. Adolfo Lutz*, 35136:41-46, 1975/1976.

Um paciente procedente da Amazônia, Brasil, seringueiro, portador de uma forma branqueada de hanseníase, tratado com sulfonas, tendo como seqüelas lestes distróficas das extremidades e manchas hipocrômicas, com perturbações da sensibilidade, apresentou no hipocôndrio esquerdo uma lesão verrucosa extensa, com evolução de mais de 10 anos, rebelde aos tratamentos feitos. Foram feitas biópsias para esclarecimento histopatológico da doença, tendo-se concluído tratar-se de dermatite verrucosa cromomicrocítica, com presença dos fungos bem caracterizados pelas colorações de rotina, e histoquímicas (*Phialophora verrucosa*).

Do resumo dos autores

A 32 years old half-breed male coming from Amazonia, Brazil, had been treated with sulfone and was showing sequels including dystrophic lesion of the extremities and hypochromia with anesthesia. On examination he showed an extensive verrucous lesion on the left hypochondrial region which had lasted 10 years and was resistant to various treatments. A biopsy of the verrucous lesion showed the picture of verrucous dermatitis with fungi evidenced by common and histochemical staining techniques (*Phialophora verrucosa*).

From authors' summary

CASTILLA PERTINEZ, R. & TERCENIO DE LAS AGUAS, J. Clasificación de las lesiones osteoarticulares de la lepra y patogenia neurotrófica. *Rev. Leprol. Fontilles*, 11(5):467-478, 1978.

CHOVET, M.; METGE, P.; FAUXPOINT, B.; SAINT-ANDRÉ, P. Uvéite postérieure lépreuse: incidence de la réaction lépromateuse. *Bull. Soc. Ophthalmol. Fr.*, 76(12):1215-1217, 1976.

Sur un lot de 79 lépromateux examinés, 55 avaient présenté des réactions lépromateuses. Six malades avaient un fundus pathologique, caractérisé par une uvéopapillite (un cas) avec périvascularite localisée (trois cas) des hémorragies (deux cas). Les auteurs incriminent " l'érythème nouveau lépreux " comme élément étiopathogénique principal.

Résumé des auteurs

CONSIGLI, C.A. Ubicación de la forma indeterminada In: REUNION LEPROLOGICA DEL CONO SUD, 2ª Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3):81-87, 1977.

The historical review in regard to the classification of leprosy is done. The Indetermined group is analyzed giving support to its inclusion into the International Classification of Leprosy.

Author's summary

DAVID-CHAUSSÉ, J.; TEXIER, L.; DEHAIS, J.; BULLIER, R.; LOUIS-JOSEPH, L. Manifestations articulaires au cours de 2 cas de lèpre. *Bordeaux Med.* 11(14):1183-1190, 1978.

The authors report on two observations of inflammatory arthrosynovitis occurring in the course of " leprosy reaction ". One involved a case of nervous leprosy, in which an intradermo-reaction of Lepromin was followed by a monoarthritis of the knee; the other a case of lepromatous leprosy in which, a few months after the administration of Disulone, polyarticular damage occurred in the course of an arthritic erythema. Various cases noted from the literature are analysed. The immunization disorders observed in the course of the leprosy reaction provide the most satisfactory explanation. Rifampicin, successfully used in one of the cases reported, provides a complement to the therapeutic means against leprosy reaction, in which corticoids,

Thalidomide and Lamprene have all proved to be truly effective.

Authors' summary

FARIA, E. WHO panel reports on HD: part II — Reactions. *Star*, 37(3):5-6, 16, 1978.

FLIESS, E.L.G.; PACIN, A.; FLIESS, M.E. Leprologia practice. El laboratorio clínico en lepra. *Temas Leprol.*, 20(61):50-58, 1977.

GANOPOL, J. & PERRUELO, N. Fracturas patológicas en el pie del enfermo de lepra. *Temas Leprol.*, 20(61):46-49, 1977.

HINCKY, J.M. Le spectre clinique et immunologique de la lèpre. *Nouv. Presse. Med.*, 8(9):657, 1979.

JOPLING, W.H. Vitiligo and leprosy. Correspondence. *Brit. J. Dermatol.*, 99(1):112, 1978.

I have found 8 cases of vitiligo among 114 lepromatous patients, an incidence of 7%, but no cases of vitiligo among a larger number of non-lepromatous patients, and I would be interested to know if this association has been noted elsewhere or if it has been reported in the literature. This observation, when fully investigated by my successor at the Hospital for Tropical Diseases, may lend support to the hypothesis that vitiligo is an auto-immune disorder, having regard to the wide variety of circulating auto-antibodies which have been described in lepromatous leprosy, such as antinuclear, antithyroid and antisperm antibodies, and rheumatoid factor.

From the letter.

KAUR, S. & KUMAR, B. Study of apparently uninvolved skin leprosy as regards bacillary population at various sites. *Lepr. India*, 50(1):38-44, 1978.

Slit smears from 16 LL and 4 BL patients were taken from scalp, exile, inguinal regions and apparently involved skin patch. The bacilli were found in 100%LL and 57%BL patients at all sites. Scalp showed AFB in all LL and 3 out of 4 BL cases. No lesions were seen on the scalp. Bacterial morphology showed no uniform pattern. Contrary to belief, no immune zones were found on the skin as judged by results of bacteriological examination. Our studies do not support the view that the

leprosy bacillus has a predilection for sites with relatively low temperature as far as human leprosy is concerned.

Authors' abstract

LEPROSY Polyneuritis. *Lancet*, 1(8108): 140, 1979.

LYNCH, P. Greater auricular nerve in diagnosis of leprosy. *Brit. Med. J.*, 2., (6148):1340, 1978.

We may reasonably conclude therefore that the greater auricular nerve is often detectable in normal individuals from an endemic area and that its usefulness in the diagnosis of leprosy is thereby diminished.

MATSUMOTO, T. & SASAKI, N. A case report of seborrheic keratosis with an exacerbated leproma. *Jap. J. Leprosy*, 46(3):73-77, 1977.

MEDEIROS, J.E.G.; NASCIMENTO, J.G.; MOURA, J.B.A. Alguns aspectos da hanseníase e suas manifestações oculares. *Arq. Bras. Oftalmol.*, 40(5):316-323, 1977.

MITTAL, R. R.; HANDA, F.; SHRMA, S.C. Inoculation leprosy subsequent to roadside injury. *Indian J. Dermatol. Venereol. Leprol.*, 42(4):175-177, 1976.

A case of high resistance tuberculoid inoculation leprosy occurring after 5 months at the site of road side injury in a 30 years old male is reported. It is the first case report of inoculation leprosy occurring as a result of road side abrasion wound. This case confirms that tuberculoid leprosy can occur by inoculation and without prolonged skin to skin contact.

Authors' summary

MOLERE FERRANDIS, R. Artropatia neuropática hanseniana. *Gaceta Med. Esp.*, 50(8):411-412, 1976.

NICOLAS, P. Erythème nouveau lèpreux induit par la vaccination au B.C.G. A propos d'un cas chez une jeune Martiniquaise lépromateuse. Bordeaux, 1976. /Thèse de Bordeaux, 1976, n.º 338/ apud *Bordeaux Med.*, 11(3):246, 1978.

OKADA, S., IZUMI, S.; NAKAI, E.; NISHIURA, M.; TAKIZAWA, H.; ORARA,

A.; SUGIYAMA, K.; OZAKI, M. A tuberculoid leprosy case with ulcers of her patches. *Jap. J. Leprosy*, 47(1):25-36, 1978.

REA, T.H. & LEVAN, N.E. Lucia's phenomenon and diffuse nonnodular lepromatous leprosy. *Arch. Dermatol.*, 114(7):1023-1028, 1978.

The records of ten patients with Lucia's phenomenon showed clinical and histopathological changes similar to those described by others. Lucia's phenomenon is a syndrome distinct from erythema nodosum leprosum as indicated by an absence of fever, leukocytosis and tenderness, a failure to respond to thalidomide, and a restriction to patients with diffuse nonnodular lepromatous leprosy. Lymphopenia associated with splenomegaly in three patients and glomerulonephritis in one patient were unexpected findings of unknown relevance.

Authors' summary

The existence of diffuse, nonnodular lepromatous leprosy raises two reciprocal questions. Why do no nodular lesions form? What is the mechanism of nodule formation? That PPDL represents early disease is not a satisfactory explanation because patients with PPDL often manifest signs indicating extensive and far advanced illness, such as splenomegaly, perforations of the nasal septum, and neurological deficits. Also, the presence of notably high serum levels of lysozyme and angiotensin converting enzyme in patients with Lucia's phenomenon is consistent with the idea that these patients have particularly extensive histiocyte infiltrations. Current views of granuloma formation include the accumulation and organization of monocyte-derived cells as modulated by lymphokines controlled by antigen-specific T-lymphocytes. Current views of the immunology of leprosy include scant or absent cell-mediated immune responses toward antigens of *Mycobacterium leprae* in lepromatous patients. Perhaps the failure of nodule formation in PPDL could be attributed to the absence of any specific cell-mediated immune responses. Conversely, nodule formation then becomes interpretable as an expression of a specific cell-mediated immune response, however feeble and without evident benefit to the host. These speculative ideas are consistent with the observations of Leiker, who found a greater degree of lepromin

responsivity in patients with nodular lepromatous leprosy than in those with diffuse lepromatous leprosy.

From authors' comment

RENDALL, J. R. & McDOUGALL, A.C. Reddening of the upper central incisors associated with periapical granuloma in lepromatous leprosy. *Br. J. Oral. Surg.*, 13:271-277, 1976.

REDDY, B.S.N.; CHANDRA, S.; JHA, P.R.; SINGH, G. Waardenburg's syndrome with leprosy. *Indian J. Dermatol. Venereol. Lepr.*, 44(1): 24-26, 1978.

A rare association of Waardenburg's syndrome and tuberculoid leprosy in a 13 year male patient is described. This is an unrecorded feature in the literature. These two disorders are quite unrelated entities and their occurrence in the same patient is a casual one. All the classical features of Waardenburg's syndrome except deafness were present and the disease manifested as an isolated case in the family. The pertinent literature is briefly reviewed.

Authors' summary

SCHMITT, J.; SCHMIDT, C.; ADAM-GOLBERG, E.; FLOQUET, J. La lèpre nerveuse en France métropolitaine, réflexions sur les problèmes posés. *Ann. Med. Intern.*, 127(3):247-251, 1976.

SILVA, D. Leishmaniose anérgica hanse-nóide. *An. Brasil. Dermat.*, 53(2): 161-168, 1978.

Assim, todas as que relacionam esta forma de leishmaniose com os qualificativos: "lepromatóide", "lepromas leishmanióticos", "simulando lepra", "pseudo-lepromatosa", "lepróide" ou "lepromatosa". Ainda que realmente justificáveis pelo fato das lèss apresentarem a mesma conotação que hanseníase virchowiana, somos forçados a relembrar que hit, em todo o mundo, um grande esforço no sentido de proscrever a palavra lepra e derivados, pelas sérias implicações sociais de todos conhecidas. Assim sendo, nada justifica que se adicione It leishmaniose um verbete interdito. Para obviar os inconvenientes acima referidos, sem desvincular entretanto de sua semelhança do ponto de vista semiótico com a hanseníase, e à ênfase que tem sido dada por quase todos os autores, insistimos na nova designação: Leishmaniose Anérgica Hansenóide, que propusemos desde 1972.

Do trabalho

SZYNKIER, V.P.; YAMADA, S.; ALCHORNE, M.M.A.; ISHIOKA, C.O. Fenômeno de Lúcio em um caso de hanseníase. In: CONGRESSO BRASILEIRO DE DERMATOLOGIA 33.º; JORNADA BRASILEIRA DE HANSENOLOGIA, 9.º; ENCONTRO NACIONAL DO PÊNFIGO, 6.º Brasília, 1976 Resumos dos trabalhos p. 115-115.

TAKIZAWA, H. Studies of clinical course and prognosis of Hansen's disease during chemotherapy. 3. Acute infiltration reaction (Tajiri) in lepromatous leprosy. *Jap. J. Leprosy*, 46(4): 139-146, 1977.

This is a report of lepromatous cases with acute infiltration reaction (Tajiri) in his clinical course under chemotherapy. They were all males, among whom one case showed localized skin lesions and other two cases had generalized lesions upon admission. Skin biopsies revealed all borderlinelepromatous features (Ridley-Jopling's classification). This reactions developed one and half to 4 months after the start of treatment, and lasted 9 months to two years intermittently. After this reaction the Mitsuda reaction test gave the same result as before in one case, but other two cases became weakly or moderately positive. Bacterial Clearance Time (Takizawa) was 2.7, 4.3 and 5.9 years, respectively. The nomenclature and the nature of this reaction were discussed, especially with relation to chemotherapy.

Author's abstract

TERENCIO DE LAS AGUAS, J. & CASTIL-LA PERTIÑEZ, R. Las lesiones osteo-articulares neurotróficas en la lepra. *Rev. Leprol. Fontilles.*, 11(3) :287-297, 1977.

TERRILES, O. Pie reaccional. Definición y patogenia. *Temas Leprol.* 20(61) :3-7, 1977.

TORCHINSKY, O.M. Dermatología del pie neuropático en lepra. *Temas Leprol.*, 20(61):18-19, 1977.

TORRES PERIS, V.; SEDRAOUI, H.; JORDA, E. Un caso de psoriasis con vitiligo y artropatia psoríase: Estudio inmunológico. *Rev. Leprol. Fontilles*, 11(2):161-173, 1977.

TERAPÉUTICA THERAPY

AMBROSE, E.J.; KHANOLKAR, S. R.; CHULAWALLA, R.G. A rapid test for bacillary resistance to dapsone. *Lepr. India*, 50(2):131-143, 1978.

A long term study of the application of the method to assess correlations with clinical results and mouse foot pad tests on a statistical basis will require a further study. But we believe that we have already shown that the use of radioactive metabolites or other rapid tests for metabolism and biosynthesis by living bacilli of *M. leprae*, before contaminating organisms can arise, will be the method of choice for a future test in clinical studies of relapsed lepromatous leprosy cases.

From the discussion

BARRETT, D.F. Lepromatous leprosy: dapsone resistance. *Proc. R. Soc. Med.* 69:391-392, 1976.

BEDI, T.R. & BHUTANI, L.K. Reactions in leprosy — II (management). *Indian J. Dermatol. Venereol. Leprol.*, 42(2): 71-74, 1976.

Limited information available on the pathogenetic mechanisms involved in reactional states of leprosy makes the task of management difficult. In the recent past a number of new drugs have been introduced. Various known etiopathogenetic factors and the present status of management of reactions in leprosy is briefly reviewed herein.

Authors' summary

BRIDE, M. B. Hydnocarpus oil in the treatment of HD. *Star*, 37(3): 4, 1978.

BRIDE, M.B. & NAIK, P.Y. Mechanism of action of thalidomide in leprosy patients suffering from reactions. *Aspects Allergy Applied Immun.*, 8 :149-151, 1975

Using sonicated suspension of an acid fast bacillus — ICRC bacillus — antigen and serum of the leprosy patients as antibody, it was shown that thalidomide prevents the release of histamine from the interaction. Thalidomide also prevented PCA reaction in rats but failed to influence passive reverse Arthus reaction in rats.

Authors' summary

BOGAERT DIAZ, H. Progresos en el tratamiento de la lepra. *Rev. Dominic. Dermat.* 12(1) 3540, 1978.

BRAND, M.B. The care of the eye. Part 4. *Star*, 38(2):6-7, 1978.

BRAND, M.B. The care of the eye: part two. *Star*, 37(6): 2-3, 1978.

BROWNE, S. Treating BD today and tomorrow. *Star*, 37(1):2-3, 1977.

BROWNE, S.G. Drug resistance in leprosy. London Leprosy Mission, 1979. 5 p.

CASTRO-COTO, A. Clofazimina; G30320 — B663 — lamp/en. *Dermatologia: rev. mex.*, 21(1):49-56, 1977.

Presentaré un pequeño resumen (sin pretender que sea completo), de las indicaciones de la clofazimina en lepra, según la opinión de diferentes autores: 1. Pacientes con lepra lepromatosa en general o en aquellos con exacerbaciones o reacciones leprosas frecuentes, repetidas y muy severas; 2. Estados agudos en algunos casos borderline o tuberculoides reaccionales, en los cuales la talidomida no es efectiva; 3. Pacientes con cuadro de RL muy severa, sobre todo mujeres que deseen procrear; 4. Pacientes con complicaciones neuríticas muy severas, por to general consecutivas a RL; 5. (Pacientes con corticodependencia, permitiendo su uso, eliminar los esteroides gradualmente; 6. Pacientes con cuadros refractarios al tratamiento con sulfonas; sulfonorresistencia; intolerancia o idiosincrasia a las sulfonas.

Del trabajo

CARVALHO, J.C.S.; HILDEBRAND, W.M.; MIGDAL, S.; WAKAMATSU, A. Experimentação terapêutica com imunomoduladores na hanseníase — levamisole e tetramisole. *Foi. Med.*, 78(3) :193-198, 1979.

Os autores estudaram a atividade terapêutica do Levamisole, um modulador químico da imuno resposta celular em 43 pacientes portadores de hanseníase, sendo 39 da forma clínica L(v), 3 da forma dimorfa e 1 da forma tuberculóide reacional. Os resultados foram bastante animadores: todos os pacientes se beneficiaram com o

uso do medicamento, principalmente os que apresentavam eritema nodoso. Foi observada uma intensa desinfiltração, com regressão dos lepromas, paralelamente a uma redução de bacilos na mucosa nasal e escarificações cutâneas. A tolerância ao Levamisole foi considerada boa, embora usado em associação com outras drogas específicas.

Resumo dos autores

FARIA, E. Drug resistance in HD. *Star*, 37(1):5. 1977.

FREERKSEN, E.; ROSENFELD, M.; BONNICI, E.; DEPASQUALE, G.; KRUGER-THIEMER, M. Combined therapy in leprosy: background and findings. *Chemotherapy*, 24:187-201, 1978.

This report is based on data obtained from 64 lepromatous cases. Despite many years of DDS monotherapy, the homogenates from biopsies of these patients revealed 10^4 or more bacteria. From the beginning of combination therapy with synergistic-acting substances (rifampicin + PTH + DDS) the logarithms of the number of bacteria in the homogenates decreased, both during treatment period and during treatment-free observation period (Figs. 3-8). During the whole time biopsies were taken almost monthly. A considerable regression of the bacterial mass or even "negativity" could be observed within a relatively short time. Once started, the process of reduction of bacteria continued also after termination of therapy. To be able to evaluate a medication therapy, free observation periods (for a minimum of 5 years) are indispensable.

Authors' abstract

FROUIN, E. Aspects de la lèpre en Nouvelle-Calédonie. A propos de 91 malades traités par la rifampicine au Centre Raoul-Follereu. Bordeaux, 1976. /Thèse de Bordeaux, 1976, n.º 48/. apud *Bordeaux Med.*, 11(3), 1978.

FUSARO, R.M. Immunotherapy of leprosy. Letters to the Editor. *Arch. Dermatol.*, 113(8):1129, 1977.

In 1972, Lim *et al* reported that repeated whole WBC transfusions given over approximately a three-month period substantially cleared patients with either lepromatous or tuberculoid leprosy. The clinical, bacteriologic, and histologic data all be-

came normal soon after the end of the immunotherapy and remained normal. These results were recently confirmed in a communication that also reiterates the previous failure of the use of transfer factor.

From the letter

GAILHBAUD, M. Immuno-stimulation non spécifique par le B.C.G. Intradermique dans les lèpres lépromateuses. Bordeaux, Ed. Bergeret, 1976. /Thèse de Bordeaux, 1976, n.º 35/ apud *Bordeaux Med.*, 11(3):242-243, 1978.

Dans ce travail, inspiré par l'Institut Pasteur de Cayenne, l'auteur étudie les résultats de l'immuno-stimulation par le B.C.G. intradermique selon la méthode de Ruscher. Les résultats semblent favorables dans 61% des cas caractérisés par des modifications immunologiques ou histologiques. Il semble que les formes BL soient les plus aptes à répondre à un immuno-stimulant. Mais ces derniers sont peut-être faussés par le fait que la plupart des malades ont été traités simultanément par la rifampicine.

M. Géniaux.

GATTI, J.C. & CARDAMA, J.E. Inmunoterapia en lepra. *Rev. Lepr. Fontilles*, 11(4):357-370, 1978.

The results of the inoculation of *M. leprae* in the mouse footpad and in the nine banded armadillo and the usefulness of these inoculations in the leprologic field are discussed. And the utility of M. I., and first line drugs in antileprae therapy. The deficient immunological capacity of the lepromatous patient is commented. Also the discovery of the principal immunotherapeutic techniques such as diphtheriae toxoid, B. C. G., levamisole and isomers, allogeneic leucocytes, transfer factor, etc., their results and side effects.

Authors' summary

HARVEY, R. F.; HARMAN, R. R. M.; BLACK, C.; READ, A.E.; BADDELEY, H.; DAVIS, J.; ESPINER, H.J. Abdominal pain and malabsorption due to tissue deposition of clofazimine (Lamprene) crystals. In- BRITISH ASSOCIATION OF DERMATOLOGISTS. ANNUAL MEETING, 57th, Bristol, 1977. apud *British J. Dermat.* 97(supl 15):19, 1977.

The benign and acceptable side effects of clofazimine are well recognized amongst leprologists. But in addition it is becoming evident that gastro-intestinal symptoms may be not only very severe, but due to tissue deposition of crystals they can be irreversible and life threatening.

From the summary

HUIKESHOVEN, H.; LANDEHEER, J.E.; DENDEREN, A.C.V.; VLASMAN, M.; LEIKER, D.L.; DAS, P.K.; GOLDRING, O. L.; PONDMAN, K.W. Demonstration of dapsona in urine and serum by Elisa inhibition. Letter to the editor. *Lancet*, 1(8058) :280-281, 1978.

Conventional methods for demonstrating dapsona are either insensitive or not practicable for general use in leprosy endemic areas. We have developed an immunoassay that is both simple and sensitive. The urine samples were used to compare ELISA inhibition with two conventional spectrophotometric procedures. Out of ten samples, negative on one or both spectrophotometric procedures, 9 were positive and 1 equivocal on ELISA inhibition testing. Sera from patients taking dapsona, which would be expected to contain 1-3 µg/ml¹³ were dapsona positive by ELISIT even when diluted a hundred-fold. The sensitivity of ELISIT and its simplicity may be of practical value in leprosy-endemic countries with limited laboratory services,

From the letter

JOLLIFFE, D.S. Leprosy reactional states and their treatment. *Brit. J. Dermatol.*, 97(3) :345-352, 1977.

Leprosy reactions can be broadly classified into two aetiological groups. Type I (Lepra) reaction is the result of changes in cell-mediated immunity and type 2 (ENL) reaction is probably due to formation of immune complexes. Therapy must at all times include effective antibacterial drugs to which specific reaction suppressants should be added. Prednisolone and clofazimine are effective in suppressing both types of reaction and thalidomide only in the treatment of Type 2 reaction.

Author's conclusion

LEVY, L. & PETERS, J. H. Susceptibility of *Mycobacterium, leprae* to dapsona as a determinant of patient response to

acedapsona. *Antimicrob. Agents Chemother.*, 9(1) :102-112, 1976.

LESER, P.G.; MONTENEGRO, M R.; FLEURY, R.; MARGARIDO, L.; BELDA, W.; MENDES, N.F.; NASPITZ, C.K. Avaliação terapêutica do fator de transferência (FT), preparado a partir de baço humano, em hansenianos Mitsuda-negativos. In: CONGRESSO LATINO-AMERICANO DE ALERGIA E IMUNOLOGIA, 6 °, Guarujá, 1977. Resumos de trabalhos científicos. São Paulo, Sociedade Latino-Americana de Alergia e Imunologia, 1977. p. 85.

MAGNA, L.M.; PINTO JUNIOR, W.; BEIGUELMAN, B. Hematócrito e sulfanemia em hansenianos. *Rev. Paul. Med.*, 93(1/2) :10-12, 1979.

O nível sanguíneo de dapsona (DDS) foi investigado em 105 hansenianos adultos (80 homens e 25 mulheres) que apresentavam valores extremos de hematócrito. A concentração sanguínea de dapsona 6 horas após a ingestão de 100 mg desse medicamento mostrou-se independente do sexo e de o hematócrito ser alto ou baixo.

Resumo dos autores

The level of dapsona (DDS) in the blood was investigated in 105 adult leprosy patients (80 males and 25 females) exhibiting extreme hematocrit values. The concentration of dapsona in the blood after the ingestion of 100 mg of this drug was independent of sex and of the hematocrit being high or low,

Authors' summary

MUROHASHI, T. & YOSHIDA, K. Drug sensitivity of *M. leprae* isolated from leprosy patients administered DDS for long period of time. *Acta Leprol.*, (73): 13-28, 1978.

Drug sensitivity was tested using liquid medium on three strains isolated from the subcutaneous nodules of L-type patients who have long been administered DDS alone. The results revealed that the first strain was resistant to DDS up to the concentration of 1.0µg/ml suggesting as if it were DDS dependent or enhanced strain, whereas the second strain was completely sensitive to DDS even at the lowest concentration of 0.01 µg/ml suggesting possible inactivation of this drug in the host patient. The third

strain was completely resistant to 0.1 µg/ml, but sensitive to 1.0 µg/ml of DDS, suggesting that the therapeutic effect can not be expected any more, when the strain becomes resistant to 0.1 µg/ml of DDS. All of the three strains were sensitive to RFP at the concentration of 0.01 µg/ml, and the host patients of the former two strains showed rapid improvement of the clinical symptoms after RFP administration. That the second strain was sensitive to INH at the concentration of 0.01 µg/ml suggested the availability of the combined use of INH in the chemotherapy of leprosy.

Authors' summary

NAIK, S.S. Irregularity of dapsone intake in infectious leprosy patients attending an urban treatment centre — its magnitude and causes. *Lepr. India.*, 50(1): 4553, 1978.

The Dapsone/creatinine ratio in random samples of urine was determined in 910 infectious leprosy patients attending the out-patient department of the Acworth Leprosy Hospital, Bombay during the period 20-9-76 to 20-11-1976. It was found that 48.7% of them were not taking regular treatment. The patients who were detected to be irregular in treatment were interviewed when they next attended the clinic to find the reason behind their irregularity. It was noticed that the majority of them (63%) attended the clinic for DDS treatment but could not come regularly for valid reasons, e.g. no time to attend, no money to travel to the clinic and absence from Bombay to go to native village.

Author's abstract

OMS, Genève. Standard protocol for chemotherapy trials in lepromatous leprosy. *Newsletter: spec. prog. res. train. trop. dis.*, (9) :15-16, 1977.

OMS, Geneva. The chemotherapy of leprosy (THELEP) programme/ Le programme de recherche sur la chimiothérapie de la lèpre (THELEP): *Bull. OMS/WHO*, 56(1) :76-77, 80-81, 1978.

PRABHAKARAN, K. A new approach to chemotherapy of Hansen's disease. *Star*, 88(3): 2-3, 1979.

SANGARE; M. Essais thérapeutiques des adjuvants bactériens de l'immunité à

médiation cellulaire sur la forme lépromateuse de la lèpre et vue générale en matière de santé au Mali. Bordeaux, 1976. /Thèse de Bordeaux, 1976, n.o 714/ apud *Bordeaux Med.*, 11(3) :247, 1978.

SIMONOVICH, I.; TERRILES, O.B.; AN-TOLA, M.; ALCÓN, R. Tratamiento de la lepra lepromatosa con la asociación: rifampicina, D.D.S. durante cuatro años. *Temas Lepr.*, 20(61): 20-22, 1977.

SEHGAL, V.N.; REGE, V.L. & KHARANGATE, V.N. Limitation of clofazimine in reactions in leprosy. *Indian. J. Derm. Vener., Lepr.*, 43(3) :152-154, 1977.

Exacerbation or precipitation of reaction in leprosy due to clofazimine treatment are described in 7 of 24 patients, highlighting its limitations in such cases and hence warranting its judicious use.

Authors' summary

TARABINI, C.G.; TARABINI, C.G.L.; NUTI, M. Lebbra e mycobatteri atipici: 3) Sulla terapia delle lebbroreazioni da sensittine tubercolari tipiche ed atipiche in pazienti con lebbra lepromatosa. *Acta Lepr.*, (68) :45-52, 1977.

In our leprosy patients the treatment of severe reactional precipitated by skin testing (with antigens from *M tuberculosis*, *M. scrofulaceum*, *M. xenopei*, *M. africanum*, *N. farcinica*, *N. otididis*) was longer and more difficult than treatment of the other forms of reactional state. Clofazimina alone (300 mg/die) did not control erythema nodosum leprosum and it was necessary to add thalidomide (400 mg/die for one week) and corticosteroids (dexamethasone : 3 mg/die for 7 days); in the moderately severe reactions we used clofazimina in the usually dose, with a short period of thalidomide at the same time. Finally, once reaction is controlled, the dose of clofazimina can be temporarily reduced to 100 mg/die. but increased again when relapse occurs.

Authors' summary

TERENCIO DE LAS AGUAS, J. & SANTA-MARIA, L. Resistencia suitor lea de tres casos de lepra lepromatosa. *Rev. Lepr. Fontilles*, 11(2): 151-159, 1977.

TERENCIO DE LAS AGUAS, J. & GATTI, C.F. Asociacion clofazimina sulfonas en el tratamiento de la lepra. *Rev. Lepr. Fontilles*, 11(4) :371-387, 1978.

15 cases of lepromatous patients were treated with sulphones and Clofazimine in a dose of 100 mg. Lamprene, 3 times a week alternatively with 50 mg. Dapsone 3 times a week, in some cases and 3 injections of Promin in others. Because of a bigger clinic and bacteriologic activity and the minimum of secondary effects we believe that this is the ideal treatment for lepromatous patients during the two years of treatment.

Authors' summary

VENKATESAN, T. V. Treatment of lepromatous leprosy with clofazimine (B-633 lamprene). *Indian J. Dermatol. Venereol. Lepr.*, 44(1):16-17, 1978.

The present clinical study comprises of eleven lepromatous leprosy patients. In all these patients lepra reaction was noticed. These patients were previously taking sulphones. Patients were followed for two years and the results are given.

Authors' summary

WATERS, M.F.R.; REES, R.J.W.; PEARSON, J.M.H.; LAING, A.B.G.; HELMY, H.S.; GELBER, R.H. Rifampicin for lepromatous leprosy: nine years' experi-

ence. *British Med. J.*, 1(6106): 133-136, 1978.

Over 100 patients with lepromatous leprosy were treated with rifampicin in a series of pilot, uncontrolled, and controlled trials in 1968-77. The rapid bactericidal effect of rifampicin on *Mycobacterium leprae* was confirmed. Clinical improvement became apparent sometimes as early as 14 days after the start of treatment. Nevertheless, a few persisting viable *M. leprae* were detected as long as five years after the start of treatment with rifampicin either by itself or in combination with the bacteriostatic drug thiambutosine. Treatment with rifampicin and dapsone for six months reduced the number of persisting leprosy bacteria more than treatment with dapsone alone.

Although rifampicin proved more effective than dapsone, it is unlikely that used by itself it can significantly shorten the length of treatment in lepromatous leprosy. Therefore initial intensive combined treatment with two or more bactericidal drugs (including rifampicin) warrants further investigation in both untreated leprosy and lepromatous leprosy resistant to dapsone.

Authors' summary and conclusions

CIRURGIA, FISIOTERAPIA, REABILITAÇÃO FÍSICA SURGERY, PHYSIOTHERAPY, PHYSICAL REHABILITATION

APPEL, G. From CERPLE to CERPHA. Progress in HD work in Brazil. *Star*, 37(1):8-9, 1977.

ARVELO, J.J. Moderns enfoques en rehabilitación en la lepra. *Bol. Inf. Soc. Arg. Leprol.* 1(4):22-23, 1977.

CHAROSKY, C.B. La mano del enfermo de lepra. *Bol. Inf. Soc. Arg. Leprol.*, 1(4):26, 1977.

FRITSCHI, E.; HAMILTON, J.; JAMES, J.H. Repair of the dorsal apparatus of the finger. *Hand*, 8:22-31, 1976.

This paper describes a simple method of assessing the constituent features of flexion deformities of the proximal interphalangeal joints in Hansen's disease, and a simple operation to correct the anterior displacement of the lateral band and the associated contractures,

Authors' summary

GONÇALVES, A.; JORGE, M.D.; GONÇALVES, N.N.S.; SANTOS, V.C. Incapacidade em hanseníase: ordenadas básicas e resultados preliminares. In: CONGRESSO BRASILEIRO DE HIGIENE, 19º. CONGRESSO PAULISTA DE SAÚDE PÚBLICA, 1º., São Paulo, 1977. Resumo dos trabalhos: temas livres. São Paulo, 1977. item 9-5.

HASHIZUME, C. Surgical treatment of functional limb disturbance in leprosy. *Jap. J. Leprosy*, 46(3): 112-138, 1977.

LAGARRIGUE, A. Traitement des paralysies médico-cubitales du lépreux par l'opération de Brand modifiée (procédé Giraudeau). Bordeaux, 1977. /Thèse de Bordeaux, 1977 n.o 157/ apud *Bordeaux Med.* 11(3):249, 1978.

LESSA, S. & CARREIRAO, S. Use of an encircling silicone rubber string for the

correction of lagophthalmos. *Plastic. Reconstr. Surg.*, 61(5):719-723, 1978.

We describe a modification of Arion's technique for the correction of lagophthalmos by a circle of silicone rubber string placed subcutaneously near the lid margin. We have operated on 14 cases by this technique with good results observed in 13 after a two-year follow-up.

Authors' summary

EPIDEMIOLOGIA, PREVENÇÃO EPIDEMIOLOGY, CONTROL

ABREU, A.; WERTHEIN, L.J.; RUIZ DE ZARATE, S. Programa de control de lepra en Cuba. *Rev. Dominic. Dermat.*, 12(2) 23-30, 1978.

ARCURI, P.B. Lepra: epidemiología. *Bol. Inf. Soc. Arg. Leprol.*, 1(4):23-24, 1977.

ARGELLIES, M.J.L. Incidence de la maladie de Hansen en Martinique: analyse épidémiologique critique des modes de dépistage. *Bordeaux Med.*, 11(30): 2775-2786, 1978.

The incidence rate of leprosy mostly depends on the efficiency of the means of detection, that's why it's often referred to, as " case detection rate ". Proceeding from the new which have come out in Martinique these last ten years a method of efficiency testing for active and passive detection structure is suggested. It is shown that the detection in schools can only diagnose at the utmost 25 % of the potential new cases as it actually concerns the group of less frequently contaminated people. Proceeding from the actual rates of incidence calculated on the proportion : new cases/actually examined children, an estimation of the probable incidence rate may be proposed by making an extrapolation upon the whole population. It is thus shown that the number of new fictive cases being 174 in 1976 and the number of detected cases 52 it is probable that 122 diseased people are about without being diagnosed. The active detection in schools must then, in order to be optimized, select the age group where the number of case is the highest, and, proceeding from these new cases, must strive to reinforce the epidemiological actions in families.

Authors' summary

Hanseníase: resumos/Hanseniasis abstracts

MILLER, S.H. & WOOD, A.M. Surgical treatment of facial nerve involvement caused by leprosy. *Am. J. Trop. Med. Hyg.*, 25(3):445-448, 1976.

PALANDE, D.D. Surgery and rehabilitation in Hansen's disease. *Star*, 37(1) :6-7, 1977.

BASTOS, J.M.G. A política nacional de controle da hanseníase. *Boi. Soc. Med. Cir. Park*, 4(20): 6, 1978.

1 — Desestigmatização da hanseníase. 2 — Desmistificação do diagnóstico. 3 — Integração de fato. 4 — Realização efetiva das práticas de prevenção de incapacidades.

BELDA, W. Aspectos da hanseníase indiferenciada no Estado de São Paulo. In: REUNION LEPROLOGICA DEL CONO SUD, 2ª, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3): 99-100, 1977.

The various epidemiological aspects of 16.534 patients of hanseniasis are considered. From this study the importance of the Indetermined group and the fact that it is more frequent in the younger group are stressed.

Adapted from the author's summary

BLANC, M. Note d'information sus l'enquête concernant la lèpre et la tuberculose en Haut Volta. *Acta Leprol.*, (68) :15-24, 1977.

A la fin de cette enquête, on peut énoncer les conclusions suivantes: — Le premier point important, c'est la participation massive de la population à cette enquête. Le pourcentage moyen de présence dépasse 91%. — En ce qui concerne la lipre, il faut noter les excellents résultats obtenus par la campagne de manse contre cette maladie. Même ;apres les nombreuses liberations décidées au tours des 6 ou 7 dernières années, on peut encore libérer les deux tiers de l'effectif en compte fin 1975. Cependant, il y a lieu de faire un gros effort de dépistage pour trouver les quelques 6.000

lépreux que l'on peut s'attendre à trouver clans ura futur immédiat. L'examen des différentes étapes du programme de lutte montre qu'il serait utile d'améliorer le dépistage, la surveillance du traitement et l'application des critères de guérison. On pourra ainsi avoir une vue plus exacte de la situation et préparer une nouvelle chute du nombre des malades. — En ce qui concerne la tuberculose, it semble bien qu'elle ne constitue pas ura problème majeur de santé publique en zone rurale. Le dépistage et le traitement de cette maladie pourraient donc are intégrés dans les activités de lutte contre la lèpre.

Author's conclusion

BLANC, M. Evaluation de la campagne de masse contre la lèpre en Haute-Volta après dix ans d'activité (1966-1976). *Acta Leprol*, (73) :39-58, 1978.

L'enquête lpar sondage effectuée en Haute Volta pour évaluer l'efficacité de la campagne de masse contre la lèpre pendant les dix ans écoulés (1966 — 1976) a montre que cette lutte avait été un grand succès: 1 — La tendance à la diminution régulière du nombre des cas de lèpre a été confirmée et même trouvée bien plus importante que ne le montraient les chiffres officiels. La prevalence diminue de 84,98%, passant de 35,01% à 5,26%,. 2 — La dynamique de la maladie est moiras forte qu'il y a dix ans. L'incidence est passée de 1,77% à 0,54^{0/00}, c'est à dire a baissé de 69,5%. 3 — Le nombre de malades à libérer des contrôles est de beaucoup plus important que les statistiques officielles le montraient. Il s'agit done dune campagne plei-nement réussie. Cependant it reste encore plusieurs dizaines de milliers de lépreux en Haute Volta et ce n'est pas le moment d'arrêter les efforts entrepris ii y a une vingtaine d'années.

De la conclusion de l'auteur

BOGAERT DIAZ, H. Propaganda y lucha antileprosa. *Rev. Dominic. Dermat.*, 10(1):25-31, 1976.

BOGAERT DIAZ, H. & MARTÍNEZ, D. Normas y procedimientos administrativos del programa de control de la lepra de Republica Dominicana. *Rev. Dominic. Dermat.*, 11(2):21-38, 1977.

BOGAERT DIAZ, H.; MARTINEZ, D.; CASTELLAZI, Z.; GÓMEZ, A. Programa de control de la lepra en Republica Dominicana 1978-1982. *Rev. Dominic. Dermat.*, 11(1):23-48, 1977.

The new program of leprosy control in the Dominican Republic for 1978-1982 is analyzed by the authors. The problem leprosy in each region of the country is reviewed and the goals to obtain by physicians and auxiliaries are outlined. The basis of the program will be the supervised treatment of LL, BL and negative lepromin reaction IL cases.

Authors' summary

BROWNE, S.G. India's role in the fight against leprosy. *Leer. India*, 50(2): 231-239, 1978.

I close with a challenge from the lips of him whose martyrdom we remember today: "Leprosy work is not merely medical relief; it is transforming the frustration in life into the joy of dedication, personal ambition into selfless service. If you can transform the life of a patient or change his values of life, you can change the village and country." And so he would challenge us in practical and persuasive terms to care for the individual leprosy sufferer, to abolish discrimination of all kinds, to prevent the spread of leprosy and prevent deformity, and to insist on the importance of non-medical factors in the treatment of leprosy in the individual and its control in the community.

From the article

BURSTEIN ALVA, Z. Lepra indeterminada en el Peru. In: REUNION LEPROLOGICA CONO SUD, 2.^a, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3):101-108, 1977.

CASAGRANDE, N.; TORNERO, N.L.; MAGALHAES, L.B. Alguns aspectos da hanseníase no 17^o. Distrito Sanitário (Londrina, PR) . 1972 a 1976. In: CONGRESSO BRASILEIRO DE HIGIENE, 19.^o, CONGRESSO PAULISTA DE SAÚDE PUBLICA, 1^o., São Paulo, 1977. Resumos dos trabalhos: temas livres. São Paulo, 1977. item 9.3.

EKAMBARAM, V. Leprosy control in developing countries. *Star*, 37(6): 4-5, 1978.

EmmausSwiss Palamaner Leprosy Project, Chittoor Dist. (A.P.), India. *Acta Leprol.*, (73) :59-72, 1978.

FARIA, E. Application gap in HD. *Star*, 36(6):1, 11, 1977.

FARIA, E. Status of ED in the U.S. *Star*, 38(3):12-13, 1979.

FELDMAN, R.A. & STURDIVANT, M. Leprosy in the United States, 1950-1969: an epidemiologic review. *South. Med. J.*, 69:970-979, 1976.

FILICE, G.A. & FRASER, D.W. Management of household contacts of leprosy patients. *Ann. Intern. Med.*, 88(4): 538-542, 1978.

We describe an approach to the management of household contacts of leprosy patients and the rationale on which it is based. Initially, all household contacts should be interviewed and examined for symptoms and signs consistent with leprosy and appropriate diagnostic measures taken. Contacts of untreated lepromatous and dimorphous (borderline) leprosy patients are at relatively high risk of disease and should be examined annually for at least 5 years. Dapsone prophylaxis has been shown to prevent secondary cases in contacts up to 25 years old and should be used in these and possibly in older persons. Insufficient data exist to support a recommendation for use of BCG at present.

Authors' summary

FREERKSEN, E. & ROSENFELD, M. Leprosy eradication project of Malta. *Chemotherapy*, 23:356-386, 1977.

GARCIA SZABÓ, R.R.; BOGAERT DIAZ, H.; VARGAS MENA, D. Lepra conjugal. *Rev. Dominic. Dermat.*, 12(2):31-36, 1978.

GIMENEZ, M.; RISSO, H.; WAISMAN, R. Lepra indeterminada y control de la enfermedad. In: REUNION LEPROLOGICA DEL CONO SUR, 2ª, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3):123-126, 1977.

GURD, C.H. Leprosy in the Northern Territory. Correspondence. *Med. J. Australia*, 2(19):652, 1977.

GUARNERI, B.; RANDALLO, S.D.; GIARDINA, A. A proposito di alcuni casi di lebbra autoctona in Sicilia. *G. Ital. Dermatol.*, 112(9):541-543, 1977.

HARI, S. Greater Visakha leprosy treatment and health education scheme, Visakhapatnam. *Lepr. India*, 50(2): 210-213, 1978.

INTERNATIONAL T.9PROSY CONGRESS, Ith, Mexico, 1978. Epidemiology and control including field therapy. *Star*, 38(3):10-11, 1979.

JAGADISAN, T.N. The human problem of leprosy control. *Star*, 37(6):10-11, 1978.

JARRAMS, A.G. A dermatological survey of the Ghurka Brigade. *J. Roy. Army. Med., Cps.*, 122:135-142, 1976.

A survey was carried out on 4,500 serving officers and soldiers of the Brigade of Gurkhas in Singapore, Malaya and Hong Kong in 1971 and 1972. The results showed a prevalence of 11.3 cases of leprosy per thousand in this highly selected group. It is suggested that some previous estimates of the prevalence of leprosy in the general population of the Himalayan foothills underestimated the problem.

Authors' summary

JESUDASAN, M. & MATTHEWS, C.M.E. Involvement of community leaders in leprosy control. Leaders training camps — an evaluation study. *J. Rehabil. Asia*, 19(3):24-40, 1978.

KAUR, P. Prevention of leprosy. *Indian J. Dermatol. Venereol. Lepr.*, 44(1):12-17, 1978.

Leprosy evolves over a long period and after the time of contact it takes long time before pathological changes become evident. Prevention may be achieved by increasing the level of detection and controlling the risk factors. In this paper, the methods of prevention of leprosy are described. Primary prevention, or prophylaxis is of prime importance and this can be achieved by reducing an individual's susceptibility as well as by reducing his/her exposure to susceptible individuals. The former needs general health promotion, immunoprophylaxis and chemoprophylaxis. The latter is achieved by isolation and early detection of cases. A critical review of merits and demerits of these measures is presented. Secondary prevention is through early detection of cases and their prompt treatment. Tertiary prevention is the prevention of deformities, and rehabilitation of these who are already disabled.

Authors' summary

KEELER, R.F. HD control in Trinidad and Tobago. *Star*, 37 (3):6-7, 1978.

KRAJEWSKI, S. Leprosy in the Libyan Arab Republic. *Przeegl. Dermatol.*, 62: 433-436, 1975.

LARA, C.B. DDS chemoprophylaxis for leprosy in children at Gulion Sanitarium Palawan, Philippines. *Acta Leprol.*, (70) :35-58, 1978.

The conclusions that can be drawn from the main (Project I) and subsidiary study (Project II) are: 1. The effect of DDS chemoprophylaxis has been temporary and of limited value. 2. The greatest benefit is in the group of children without known direct contacts when protection after four years prophylaxis may reach 88.4%, declining in the subsequent four years of observation to 62.4%. The next to benefit are the children of lepromatous parents, with 46.8% protection at cessation of prophylaxis and diminishing to 18.9%. Slight to negligible protection appears to be afforded to the children of non-lepromatous families. 3. The investigator considers that although most children start with tuberculoid or indeterminate lesions, as they grow older self healing is relatively greater among females than males. 4. That the main action of DDS chemoprophylaxis is that of reducing the incidence of mild cases and those that have an inherent trend towards self-healing i.e which in the natural course affects chiefly the female sex, and temporarily also reduces the severity of other cases. 5. Chemoprophylaxis may be justified in contact children under the age of five years (considered the most vulnerable period for both sexes), for a period of not more than six years. A note of caution must be sounded on the toxic effects of DDS and prophylaxis should be accompanied by a suitable iron preparation. Where expert examination is available twice yearly to this age group, chemoprophylaxis can be considered unnecessary.

Author's conclusions

5. Leprosy — Lèpre. In: II. Current data — Données courantes infectious diseases; monthly or four-weekly number of reported cases, 1976 and 1977/ Maladies infectieuses: nombre de cas notifiés par mois ou périodes de quatre semaines, 1976 et 1977. WH Statistics Quarterly/Rapport trimestrielle de Statistiques Sanitaires mondiales, 31(2): 200-202, 1978.

MATHUR, N.K.; KANWAR, A.J.; KALLA, G.; UJWAL, J.S. Leprosy in Jodhpur (Rajasthan): clinical and epidemiological study. *Leprol. India*, 50(2) :204-209, 1978.

A clinical and epidemiological study of leprosy revealed 232 cases in Jodhpur (Rajasthan); a non-endemic area. Males were three times more affected than females. Lepromatous leprosy was the most common type (70.70%). Maximum number of cases were observed in the age group 20-49 years. The probable causes for an increase in incidence are discussed.

Authors' abstract

MELLO, A. Hanseniasis nas áreas metropolitanas. In: CONGRESSO BRASILEIRO DE HIGIENE, 19°. CONGRESSO PAULISTA DE SAÚDE PÚBLICA, 1.°, São Paulo, 1977. Resumos dos trabalhos: temas livres. São Paulo, 1977. item 9.6.

NASSERI, K. & KO, Y.H. Epidemiology of leprosy in Iran. *Int. J. Lepr.*, 45 (4): 1977.

A total of 907 cases of leprosy from two sources, records from Baba-Baghi Leprosarium (709 cases) and Ahar case finding survey (198 cases), have been studied. The main characteristics of the cases are: a) about 50% of all cases are lepromatous leprosy; b) the leprosarium cases are about 2.5 years younger; c) about 70% of all cases are male; and d) the incidence of leprosy shows a steady increase up to 25-30 years of age and levels off thereafter. These and other findings are discussed.

Authors' summary

OMS, Geneva. Renforcement de la formation et du réseau institutionnel pour la recherche sur la lèpre. *Bull.OMS/WHO*, 56(4): 561-563, 1978.

OMS, Geneva. Leprosy / Lèpre. *Wkly, Epidem. Rec. / Relevé Epidém. Hebd.*, 53: 147, 1978.

OMS, Geneva. Leprosy / Lèpre. *Wkly, Epidem. Rec. / Relevé Epidém. Hebd.*, 53(33): 249-250, 1978.

OMS, Genève. IMMLEP: focus on immunoprophylaxis. *Newsletter: spec. prog. res. train. trop. dis.*, (12): 15-17, 1978.

PFALTZGRAFF, R.E. Managing HD in the field *Star*, 36(6): 4-5, 1977.

PRASAD, K R Family planning in relation to leprosy, venereology and dermatology. *Indian J. Dermatol. Venereol.*, 43(4): 225-227, 1977.

The futility of compulsory sterilization of leprosy patients as a method of controlling leprosy is pointed out. However leprosy patients do need family planning advice and methods as do the general population. In addition infectious leprosy patients need to postpone marriage or pregnancy till they become non-infectious. The possible way in which family planning may influence sexually transmitted diseases and skin disorders are briefly indicated.

Author's summary

PORTUGAL. Ministério dos Assuntos Sociais. Decreto-Lei n.º 547/76 de 10 de julho. *Rovisco Pais*: rev. port. doença Hansen, 15(1):69-78, 1976.

PORTUGAL. Ministério dos Assuntos Sociais. Portaria n.º 131/77 de 14 de março. Regulamento da luta contra a doença de Hansen. *Rovisco Pais*, rev. port. doença Hansen., 15(1):79-83, 1976.

ROTBURG, A. Nasce no Brasil a fase III da prevenção da hanseníase. In: REUNION LEPROLOGICA DEL CONOSIM, 2.ª, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3):93-98, 1977.

The new program of prophylaxis of hanseniasis in Brazil (Phase III) is based on the social and psychological aspects of the disease.

Adapted from the summary

SAIKAWA, K. The epidemiological study on leprosy in Okinawa Island the third report; on the Islets. *Jap. J Leprosy*, 46(1):1-7, 1977.

SAIKAWA, K. The epidemiological study on leprosy in the Ryukyu Island the 4th report: on leprosy in the urban area. *Jap. J. Leprosy*, 46(1):8-13, 1977.

SALVADOR, M.A.; BIAGINI, R.E.; MARTINEZ, T.E. Actualización de la endemia leprosa en Salta. *Arch. Arg. Dermatol.*, 26(3-4):181-186, 1976.

The authors have reported several times a number of facts which show the "State" or "Province" of Salta, in Argentina, is an endemic area of leprosy. In the last five years the number of patients has been four

times superior to those seen in previous 5-years period. A study is made on the basis of the area where the population is more dense. The results show that although there is not a program for the control of the disease, the incidence at the end of this decade would be more than 0,5%.

Authors' summary

SEHGAL, V.N.; REGE, V.L.; MASCA-RENHAS, M.F.; REYS, M. The prevalence and pattern of leprosy in a school survey. *Int. J. Lepr.*, 45(4):360-363, 1977. The prevalence of leprosy in a school

survey conducted in Panaji, India was found to be 5.3 per 1,000 with males predominating. The majority of patients had a single lesion on exposed parts of the body showing the clinical characteristics of tuberculoid leprosy. However, clinical features of indeterminate leprosy were seen in two patients and borderline tuberculoid in a single case. On the other hand, histopathologically, the majority of the patients were classified as having borderline tuberculoid or indeterminate leprosy. A disparity between the clinical and histopathologic diagnosis was evident. This observation emphasizes the importance of studying both the clinical and histopathologic features in deciding the precise status of a patient in the leprosy spectrum.

Authors' summary

SERVIÇOS oficiais de saúde pública. 35. Casos de hanseníase, em registro ativo em 31 — 12 e registrados no período, segundo as Unidades da Federação, 1976. *Anu. Estat. Brasil*, 38: 197, 1977.

SILVA, N.C. & AYRES, A.C.S. Estratégia global na organização da luta contra a hanseníase. In: CONGRESSO BRASILEIRO DE HIGIENE; 19.º CONGRESSO PAULISTA DE SAÚDE PÚBLICA, 1.º São Paulo, 1977. Resumos dos trabalhos: temas livres. São Paulo, 1977. item 9.1.

STANFORD, J.L. A vaccine for leprosy. *Star*, 37(6):6-7, 1978.

TERENCIO DE LAS AGUAS, J. Epidemiología de la lepra en España (I). *Rev. Leprol. Fontilles*, 11(5):493-501, 1978.

VALENCIA TELLERIA, A. & ZEBALLOS J.L. *Manual de normas técnicas y procedimientos administrativos para el control de la enfermedad de Hansen.* Bolivia, Div. Nac. de Epidemiol., 1979. 45p.

Introducción. Definición de Terminos. Búsqueda de Casos. Criterios para el Diagnóstico de la Enfermedad de Hansen. Criterios para el Tratamiento Ambulatorio. Complicaciones de la Enfermedad de Hansen. Actividades de Apoyo. Criterios para la Hospitalización. Criterios de Control y Altas. Organización Administrativa. Atribuciones del Hansenólogo Regional. Normas de Trabajo para los Servicios o Centros de Salud a Nivel Distrital. Funciones del Auxiliar Polivalente Entrenado en Hansen. Funciones del Encargado de los Puestos de Salud. Sistemas de Evaluation y Control. Manejo de Formularios.

VARELA, N.; MARGOUNATO, M.; VIGNALE, R.; ROZEN, V. La lepra en el Uruguay en el periodo 1961-1976. In: REUNIÓN LEPROLOGICA DEL CONO SUD, 2.a, Buenos Aires, 1977. apud *Arch. Argent. Dermat.*, 27(2-3): 109-110, 1977.

The endemic aspects of leprosy in Uruguay are analyzed. The Indetermined cases are very few. The difficulties concern

ing the endemic control in Uruguay are pointed out. Authors' summary

WALTER, J. Manpower formation for leprosy control. *Acta Leprol.*, (68): 9-14, 1977.

The objective of training activities in leprosy is the formation of sufficient and qualified manpower necessary to control the disease. A clear definition of the leprosy problem in each country or area is an essential requirement for the planning of training activities. The existing and planned health infrastructure is another milestone on which specific manpower needs for leprosy and other disease control must be based. Hasty extension and creation of specialized services, which in leprosy are of a longterm nature, 20 years or more, often create more problems than they are intended to solve. Close coordination and integral development of leprosy control with other health activities in most instances will be the soundest approach towards meeting the training needs for leprosy control. Some exceptions for high leprosy endemic countries, or areas inside such countries, must be made and specialized training will be needed for such conditions.

From author's summary

PSICOLOGIA, EDUCAÇÃO, REABILITAÇÃO SOCIAL PSYCHOLOGY, EDUCATION, SOCIAL REHABILITATION

BALIÑA, L.M.; CHAROSKY, C.B.; KAUFMANN de SWIEC, A.; BALIÑA de VALDEZ, M. Educación programada en Leprología. N.º 1. Un caso para el médico, el trabajador psico-social, el rehabilitador físico, el terapeuta ocupacional y el estudiante de estas disciplinas. *Rev. Leprol. Fontilles.* 11(2): 141-143, 1977.

apud *Arch. Argent. Dermat.*, 27(2-3): 127-130, 1977.

The psycho-linguistic search has showed that up to this time a new word for the designation of leprosy is not indicated. The sin is not in the word but in the painful implication of the meaning of that word.

Authors' summary

BROWNE, S.G. India's role in the fight against leprosy. *Lepr. India*, 50(2): 231-239, 1978.

INTERNATIONAL 1'8. ERATION OF,ANTI-LEPROSY ASSOCIATIONS. Basic knowledge about leprosy; a guide for non-medical personnel. Sierra Leone, West African Leprosy Secretariat /apr. 1977/ 15p.

GIMENEZ, M. & CAUDERER, L.E.de. Algunos aspectos de la experiencia chaqueña sobre el control de la lepra. In: REUNION LEPROLOGICA DEL CONO SUD, 2.a, Buenos Aires, 1977.

JAGADISAN, T.N. The human problem of leprosy control. *Star*, 37(6) :10-11, 1978.

KULKARNI, A. Sponsorship of children of leprosy parents. *Lepr. India*, 50(2): 173-180, 1978.

What is sponsorship? The GASP programme. The methods of sponsorship. The progress of the programme. Difficulties in carrying out the programme. Separation of children. Some examples of sponsorship of children of leprosy parents and the problems. Need for day school for children suffering from infectious leprosy. Looking forward.

ROTBORG, A. A fase III do controle da hanseníase começa no Brasil / Phase III of hanseniasis control commences in Brazil. Editorial. *Hansen.: res./not. abs. news*, 8(1-2) :3-13, 1977.

Fase I: Isolamento compulsório. Fase II: tratamento de pacientes de ambulatório em serviços integrados. Fase III: A prioridade dos problemas psico-sociais. Outras medidas convencionais e não-convencionais. A fase III aprovada em testes preliminares. Conversa franca com os países endêmicos.

*

Phase I: Compulsory isolation. Phase II: treatment of out-patients in integrated services. Phase III: The priority of psychosocial problems. Other conventional and nonconventional measures. Phase III approved in the preliminary tests. A frank talk between endemic countries

THEOPHILUS, S. Hansen's disease: doctor, patient and society. *Star*, 36(6): 2-3, 1977.

GENERALIDADES, HISTÓRIA GENERAL AND HISTORY

CABRAL, O.R. Maculo, varíola, lepra. *Arq. Cat. Med., Edição Cultural* (1) :33-41, 1977.

CONTRERAS DUMAS, F. Enfermedades de la piel. *Actas Dermo-Sifiliogr.*, 68 (9/10) :618, 1977.

"Enfermedades de la piel" es el título del capítulo XIII del Levítico en las reeditadas ediciones que se han publicado en la mayoría de los idiomas europeos de la llamada Nueva Biblia, que nos satisface al comprobar que la Biblia anteriormente conocida se ha transformado totalmente en cuanto a Biblia se refine. En las antiguas ediciones, el título del capítulo XIII era "Leyes de policía sobre el discernimiento de la lepra, el cual pertenece a los sacerdotes".

Este capítulo XIII constaba de 59 párrafos, en los que se reiteraban las palabras "lepra" y "leproso", y en cambio en la nueva Biblia ocupa la mitad de espacio, sólo 43 párrafos, sin mencionar ninguna vez las palabras aludidas. Además de lo del Levítico, han sido modificados en el mismo sentido el libro del Exodo, el de los Números, las Crónicas, los Paralipómenos y el libro de Job, y también del Nuevo Testamento desaparecieron las palabras citadas y todas las medidas discriminatorias con los enfermos. Por supuesto, que la

edición española está editada por Ediciones de Cristiandad, y las ediciones francesas, italianas e inglesas, lo mismo que la española, están autorizadas con el Nihil obstat.

CONTRERAS DUEÑAS, R. Lucha contra la lepra en España desde 1901 hasta 1978. *Acta Leprol.*, (70) :59-103, 1978.

Lo más importante es que durante siglos, hasta comienzos del siglo XX, la palabra "LEPRA" se utilizó como un cajón de sastre, al que iban a parar todas las enfermedades repugnantes que nadie sabía diagnosticar. Con más propiedad, como un monstruoso depósito de basura, al que arrojaban todas las irremediables, todas las mutilaciones, que no sabían curar, junto con todas las dermatosis de aspecto repugnante que los curanderos de todos los tiempos y lugares no lograban aliviar en dos plazos de siete días. Aunque nosotros nos vamos a referir a España, esto era igual en toda Europa y en los demás continentes y mientras esto ocurría es imposible precisar ninguna evolución, en ningún país, por ser necesario empezar discriminando exclusivamente sobre la enfermedad producida por el *Micobacterium leprae*.

Del trabajo

FARINA, D.C. Leprosos na província de São Paulo. *J. Assoc. Paul. Med.*, 14 (217) :7-8, 1979.

GATTI, J.C. Recientes avances y estudios actuales en la investigación en lepra. *Boi. Inf. Soc. Arg. Leprol.*, 1(4): 25, 1977.

GOMEZ, A. Lepra en la provincia de Puerto Plata. *Rev. Dominic. Dermatt.*, 12(2): 3740, 1978.

Some historical data about leprosy therapy before Sulfones at the Province of Puerto Plata are reviewed; a brief biography of Margarita Mears, precursor of leprosy control in the Dominican Republic, is included.

Author's summary

HIND Kusht Nivaran Sangh. (Indian Leprosy Association). Annual report for 1976. New Delhi /1977/.

JACOBSON, R.R. & TRAUTMAN, J.R. The diagnosis and treatment of leprosy. *South. Med. J.*, 69:979-985, 1976.

JOPLING, W.H. Leprosy today. *Indian J. Dermatol. Venereol.*, 44(4) :190-196, 1978.

The paper begins with an account of the present world distribution of leprosy and is followed by a description of the clinical features of the various types of the disease. The differing views regarding the mode of spread are discussed, and, on the subject of the management of leprosy, special emphasis is placed on the shortcomings of the antileprosy drugs which are at present available, on the question of bacterial resistance to dapsone, and on the problem of absenteeism and of defaulting on treatment. The outlook for the production of an effective vaccine is discussed, and the paper ends with a tribute to the all-important role played by medical auxiliaries in countries where leprosy is endemic.

Author's summary

KATO, L. & MARCHAND, J. Leprosy: "Loathsome disease in Tracadie, New Brunswick" — a glimpse into the past century. *Can. Med. Assoc. J.*, 114: 440-442, 1976.

LAGARRIGUE, J. La lèpre. Aspects épidémiologique, immunologique, clinique et thérapeutique en Guyane française.

Bordeaux, 1976. /Thèse Med., Bordeaux, 1976, nri 514/ apud Bordeaux Méd., 11 (3) :247, 1978.

LANGUILLON, J. Activités de l'Institut de Léprologie appliqués de Dakar. Fondation de l'Ordre de Malte de 1972 a 1977. *Acta Leprol.*, (69): 9-70, 1977.

MIRANDA, R.M. Cemitério de lázaros. *J. Assoc. Paul. Med.*, 14(217) :5-6, 1979.

O QUE se deve saber sobre hanseníase. *Saúde*, 2(13) :1, 1977.

OMS, Geneva. 3. Examen de cuestiones técnicas especiales. Lucha contra la lepra. *Actas Oficiales OMS*, (241) :610-616, 1977.

OMS, Genève. Training and institution strengthening for leprosy research. *Newsletter: spec. prog. res. train. trop. dis.*, (11) :18-19, 1978.

PATTYN, S.R. Tuberculosis and leprosy a comparison. *Acta Leprol.*, (73) :3-11, 1978.

ROCCA, P. Del dispensario al hospital de dermatologia. *Temas Leprol.*, 20(61) :29-45, 1977.

ROTBERG, A. Hanseníase. In: PRADO, F.C. et al. Atualização terapêutica. 11.a ed. São Paulo, Artes Médicas, 1978. p. 584-585.

"SEDARE dolorem divinum opus est." Preconceitos milenares não se coadunam com a verdade científica. *Saúde*, 3(25/26) :8-9, 1978.

SKINSNES, O.K. Leprosy and Dar-Kosis. Editorial. *Int. J. Lepr.*, 45(4) :376-377, 1977.

TERENCIO DE LAS AGUAS, J. La lepra en el reino de Valencia. V. Arnau de Vilanova. Editorial. *Rev. Leprol. Fontilles*, 11(3) :237-240, 1977.

TERENCIO DE LAS AGUAS,, J. La lepra en el reino de Valencia: VI — Siglo XIX. *Rev. Leprol. Fontilles*, 11(4) : 347-350, 1978.

TERENCIO DE LAS AGUAS, J. La lepra en el reino de Valencia. Siglo XX. Editorial. *Rev. Leprol. Fontilles*, 11(5) : 465-466, 1978.