

Biologia Molecular e Endocrinologia

Leal AM, Magalhães PK, Souza CS, Foss NT. Pituitary-gonadal hormones and interleukin patterns in leprosy. Trop Med Int Health 2006 Sep; 11(9):1416-21.

The functional status of pituitary-gonadal hormones and their relationship to the pattern of inflammatory cytokines in the lepromatous (LL/BL) and tuberculoid (TT/BT) poles of leprosy were investigated. Gonadotropins [luteinizing hormone (LH) and follicle-stimulating hormone (FSH)], interleukin (IL)-1beta, IL-6, tumour necrosis factor (TNF)-alpha and C-reactive protein (CRP) concentrations and erythrocyte sedimentation rate (ESR) were significantly higher in LL/BL leprosy patients than in controls and were not different from controls in TT/BT patients. LH and FSH were positively correlated with IL-1beta, IL-6 and TNF-alpha, and CRP concentrations and ESR. Testosterone plasma levels were significantly decreased in LL/BL patients and not different in TT/BT patients compared with controls. In addition, testosterone levels were inversely correlated with IL-6 and TNF-alpha. Prolactin plasma levels of both LL/BL and TT/BT patients were not different when compared with those of controls. There was a significant positive correlation between IL-6 and TNF-alpha plasma levels and ESR and CRP concentrations. IL-1beta was positively correlated with ESR but not with CRP. The significant correlations between gonadotropins and testosterone and cytokines in leprosy patients suggest that cytokines may have a direct influence at testicular level and may be of pathogenetic significance in leprosy and in other inflammatory states involving reproductive dysfunction.

Biologia Molecular e Genética

Tosh K, Ravikumar M, Bell JT, Meisner S, Hill AV, Pitchappan R. Variation in MICA and MICB genes and enhanced susceptibility to paucibacillary leprosy in South India. Hum Mol Genet 2006 Aug; 15(19):2880-7.

In a study of mainly paucibacillary leprosy-affected sib-pair families from South India, in addition to the expected associations with the HLA-DRB1 locus, we have identified significant association with a functional variant of the MICA gene as well as a microsatellite in the flanking region of the MICB gene. The associations with MICA and MICB cannot be accounted for by linkage disequilibrium with the HLA class II locus indicating a role in genetic susceptibility to leprosy that is independent of HLA-DRB1. Previous studies have shown that MICA and MICB are expressed on the surface of cells in response to infection, where they are recognized by the NKG2D receptor on gammadelta T cells, CD8+ alphabeta T cells and natural killer cells, all of which contribute to defense against mycobacteria. The MICA*5A5.1 allele, associated here with leprosy susceptibility, encodes a protein lacking a cytoplasmic tail providing a possible mechanism for defective immune surveillance against mycobacteria.

Literatura corrente em hanseníase

Biologia Molecular/Epidemiologia

Matsuoka M, Roa R, Budiawan T, Kyaw K, Chae GT. Genotypic analysis of *Mycobacterium leprae* isolates from Japan and other Asian countries reveals a global transmission pattern of leprosy. *FEMS Microbiol Lett* 2006 Aug; 261(1):150-4.

The genotype of single-nucleotide polymorphism type 3, CTC, at positions 14676, 164275, and 2935685, along with four copies of 6 bp repeats in the *rpoT* gene, was predominant for isolates originating in the Japanese mainland. Type 1, CGA, type 2, CTA, and type 3 were detected from Korea, Indonesia, and Myanmar. No isolates with four copies of 6 bp were detected from Myanmar, Okinawa, and Japanese Brazilian patients. Type 4, TTC, with three copies of 6 bp, was detected only from Japanese Brazilians. The results indicate that infection occurred in Brazil and the disease developed later in Japan.

Biologia Molecular/Neurologia

Tapinos N, Ohnishi M, Rambukkana A. ErbB2 receptor tyrosine kinase signaling mediates early demyelination induced by leprosy bacilli. (Comment In: *Nat Med*. 2006 Aug;12(8):889-90). *Nat Med* 2006 Aug; 12(8):961-6.

Demyelination is a common pathologic feature in many neurodegenerative diseases including infection with leprosy-causing *Mycobacterium leprae*. Because of the long incubation time and highly complex disease pathogenesis, the management of nerve damage in leprosy, as in other demyelinating diseases, is extremely difficult. Therefore, an important challenge in therapeutic interventions is to identify the molecular events that occur in the early phase before the progression of the disease. Here we provide evidence that *M. leprae*-induced demyelination is a result of direct bacterial ligation to and activation of ErbB2 receptor tyrosine kinase (RTK) signaling without ErbB2-ErbB3 heterodimerization, a previously unknown mechanism that bypasses the neuregulin-ErbB3-mediated ErbB2 phosphorylation. MEK-dependent Erk1 and Erk2 (hereafter referred to as Erk1/2) signaling is identified as a downstream target of *M. leprae*-induced ErbB2 activation that mediates demyelination. Herceptin (trastuzumab), a therapeutic humanized ErbB2-specific antibody, inhibits *M. leprae* binding to and activation of ErbB2 and Erk1/2 in human primary Schwann cells, and the blockade of ErbB2 activity by the small molecule dual ErbB1-ErbB2 kinase inhibitor PKI-166 (ref. 11) effectively abrogates *M. leprae*-induced myelin damage in *in vitro* and *in vivo* models. These results may have implications for the design of ErbB2 RTK-based therapies for both leprosy nerve damage and other demyelinating neurodegenerative diseases.

Clínica/Odontologia

Faye B, Kane AW, Sarr M, Lo C, Ritter AV, Grippo JO. Noncarious cervical lesions among a non-toothbrushing population with Hansen's disease (leprosy): initial findings. *Quintessence Int* 2006 Sep; 37(8):613-9.

OBJECTIVE: The purpose of this preliminary investigation was to examine the presence of noncarious cervical lesions (NCCLs) among a convenience sample of non-toothbrushing subjects with Hansen's disease (leprosy). **METHOD AND MATERIALS:** A cross-sectional sample of 102 non-toothbrushing subjects (20 to 77 years of age) was examined. The clinical parameter of interest for this study was the presence or absence of NCCLs and their probable etiology as it relates to the subjects' diet, occlusion, and use of medication. Subjects were examined clinically and interviewed according to study protocol. **RESULTS:** NCCLs were found in 48 subjects (47% of the studied sample). Widespread consumption of acidic foods and beverages acting as corrodents, signs of parafunction, and use of medication that causes xerostomia were also noted. Thus, all may be contributing factors in the etiology of NCCLs in this population. **CONCLUSION:** This preliminary report suggests that toothbrush/dentifrice abrasion was not a factor in the etiology of NCCLs in the population studied. The authors intend to expand their study among these non-toothbrushing

Endocrinologia e Biologia Molecular

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The functional status of pituitary-gonadal hormones and their relationship to the pattern of inflammatory cytokines in the lepromatous (LL/BL) and tuberculoid (TT/BT) poles of leprosy were investigated. Gonadotropins [luteinizing hormone (LH) and follicle-stimulating hormone (FSH)], interleukin (IL)-1beta, IL-6, tumour necrosis factor (TNF)-alpha and C-reactive protein (CRP) concentrations and erythrocyte sedimentation rate (ESR) were significantly higher in LL/BL leprosy patients than in controls and were not different from controls in TT/BT patients. LH and FSH were positively correlated with IL-1beta, IL-6 and TNF-alpha, and CRP concentrations and ESR. Testosterone plasma levels were significantly decreased in LL/BL patients and not different in TT/BT patients compared with controls. In addition, testosterone levels were inversely correlated with IL-6 and TNF-alpha. Prolactin plasma levels of both LL/BL and TT/BT patients were not different when compared with those of controls. There was a significant positive correlation between IL-6 and TNF-alpha plasma levels and ESR and CRP concentrations. IL-1beta was positively correlated with ESR but not with CRP. The significant correlations between gonadotropins and testosterone and cytokines in leprosy patients suggest that cytokines may have a direct influence at testicular level and may be of pathogenetic significance in leprosy and in other inflammatory states involving reproductive dysfunction.

Literatura corrente em hanseníase

Epidemiologia

Barreto ML, Pereira SM, Ferreira AA. Vacina BCG: eficácia e indicações da vacinação e da revacinação / BCG vaccine: efficacy and indications for vaccination and revaccination. *J. pediatr. (Rio de J.)* 2006 Jul; 82(supl.3): s45-s54.

OBJETIVOS: Revisar aspectos relacionados ao efeito protetor da primeira e segunda doses da vacina BCG e discutir as suas principais indicações e contra-indicações. FONTES DOS DADOS: Utilizando o PubMed, foi realizada uma revisão sistemática da literatura abrangendo um período de, aproximadamente, 50 anos. Os estudos foram agrupados por tipo de desenho, apresentando-se separadamente os principais resultados de ensaios clínicos, estudos de caso-controle e meta-análises. Outros tópicos relevantes, como a BCG e HIV/AIDS, o uso do teste tuberculínico, aspectos relacionados à cicatriz vacinal e ao desenvolvimento de novas vacinas, dentre outros, foram também revistos. SÍNTESE DOS DADOS: A vacina BCG é utilizada desde 1921. Apesar disso, ainda apresenta controvérsias e aspectos não esclarecidos. O efeito protetor da primeira dose da vacina BCG contra a tuberculose na forma miliar ou na meningite é bastante significativa. No entanto, em relação à forma pulmonar, os resultados são discordantes, variando de ausência de efeito a níveis próximos a 80 por cento. Há evidências de que uma segunda dose da BCG não aumenta o seu efeito protetor. Estudos demonstram proteção da vacina contra a hanseníase. Pesquisas sobre novas vacinas que, no futuro, poderão vir a substituir a BCG estão sendo realizadas. CONCLUSÕES: Apesar da expectativa de que, no futuro, venhamos a ter uma nova vacina para a tuberculose, no presente e ainda por muitos anos, a vacina BCG, apesar de suas deficiências, mantém-se como um importante instrumento nos esforços para controle dos efeitos danosos da tuberculose, sobretudo em países em que essa doença ocorre em médias e elevadas taxas de incidência. (AU).

Epidemiologia

Lapa TM, Albuquerque MFPM, Carvalho MS, Silveira Júnior JC. Análise da demanda de casos de hanseníase aos serviços de saúde através do uso de técnicas de análise espacial / Spatial analysis of leprosy cases treated at public health care facilities in Brazil. *Cad saúde pública* = *Rep public health* 2006 Dez; 22(12):2575-2583.

O desafio para redução da prevalência da Hanseníase, endemia de grande importância no cenário brasileiro, tem se fundamentado na descentralização para os serviços de atenção básica. Descreveu-se inicialmente a estruturação e a oferta dos serviços para o atendimento de casos de hanseníase. Em seguida analisou-se a evolução dos indicadores epidemiológicos e operacionais, tomando como referência os períodos pré e pós a municipalização. Por fim, a análise espacial permitiu identificar a distribuição territorial da ocorrência da endemia e analisar o padrão de áreas geográficas construídas segundo o atendimento pelas unidades de saúde e sua evolução. A partir da localização geográfica dos centróides dos setores censitários de residência, e usando técnica de alisamento espacial, com base na estimativa de Kernel, foram construídas áreas de domínio de atendimentos de cada unidade. Após a municipalização, observa-se aumento da detecção e tratamento pelo município, reduzindo a evasão a outros municípios, mudanças no comportamento da demanda, com aumento da clientela referida no uso dos serviços, e alterações importantes nos indicadores epidemiológicos e operacionais. (AU) Hansen disease or leprosy is a major endemic disease in Brazil. Well-designed strategies, including decentralization of basic care, are needed to reduce its prevalence. The article begins by describing the structure and supply of services for treating leprosy cases in the country, after which it analyzes the trends in epidemiological and operational indicators, comparing the periods before and after decentralization of services to the municipal (local) level. Finally, spatial analysis allowed identifying the territorial distribution of this endemic and analyzing the pattern of geographic areas according to care provided by health facilities and its evolution. Based on the location of the geographic centers in the census tracts by place of residence, and using spatial

smoothing technique based on Kernel estimation, the study constructed domain areas of care for each health facility or unit. Following municipalization of care, there was an increase in the detection and treatment by the municipalities themselves, reducing patient evasion to neighboring counties and causing changes in demand trends, with an increase in use of services by the clientele and important alterations in the epidemiological and operational indicators.(AU).

Epidemiologia

Opromolla PA, Dalben I, Cardim M. Análise geoestatística de casos de hanseníase no Estado de São Paulo, 1991-2002 / Geostatistical analysis of leprosy cases in the State of São Paulo, 1991-2002. Rev saúde pública = J public health 2006 Out; 40(5):907-913.

OBJETIVO: Analisar o padrão espacial da ocorrência dos casos de hanseníase para identificar áreas com probabilidade de riscos de transmissão da doença. MÉTODOS: Estudo ecológico, tendo como unidade de análise os municípios do Estado de São Paulo georreferenciados em seus centróides. A fonte de dados utilizada foi o banco informatizado dos casos de hanseníase notificados do Centro de Vigilância Epidemiológica do Estado de São Paulo, no período de 1991 a 2002. Utilizou-se de técnicas de geoestatística para a detecção das áreas de probabilidade de risco para hanseníase e quantificação da dependência espacial dos casos. RESULTADOS: Detectou-se o alcance de dependência espacial de 0,55 graus de coordenadas georreferenciadas, correspondendo aproximadamente a 60 km. As principais áreas de probabilidade de risco encontradas foram as regiões nordeste, norte e noroeste do Estado. CONCLUSÕES: A verificação de áreas com probabilidades de riscos de casos de hanseníase, utilizando-se a análise da dependência espacial, pode ser ferramenta útil para avaliar a situação de saúde e planejar alocação de recursos.(AU) OBJECTIVE: To analyze the spatial pattern of leprosy case occurrences in order to identify areas with a probability of disease transmission risks. METHODS: This was an ecological

study in which the analysis units were municipalities in the State of São Paulo that were georeferenced at their centroids. The data source was the electronic database of notified leprosy cases at the Epidemiological Surveillance Center of the State of São Paulo, from 1991 to 2001. Geostatistical techniques were used for detecting areas with a probability of leprosy risk, and for quantifying the spatial dependency of cases. RESULTS: The spatial dependence detected extended outwards to 0.55 degrees from the georeferenced coordinates, which corresponded to approximately 60 km. The main areas identified as presenting a probability of risk were the northeastern, northern and northwestern regions of the State. CONCLUSIONS: Verification of areas with the probability of leprosy risk using spatial dependence analysis may be a useful tool for assessing health conditions and planning budget allocations.(AU).

Literatura corrente em hanseníase

Genética/Biologia Molecular

Tosh K, Ravikumar M, Bell JT, Meisner S, Hill AV, Pitchappan R. Variation in MICA and MICB genes and enhanced susceptibility to paucibacillary leprosy in South India. *Hum Mol Genet* 2006 Oct; 15(19):2880-7.

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História

Weindling P. As origens da participação da América Latina na Organização de Saúde da Liga das Nações, 1920 a 1940 / The League of Nations Health Organization and the rise of Latin American participation, 1920-40. *Hist ciênc saúde-Manguinhos* 2006 Jul-Set; 13(3):555-70.

A Organização de Saúde da Liga das Nações colaborou com especialistas latino-americanos em saúde pública e doenças infecciosas desde o início da década de 1920 e até a eclosão da Segunda Guerra Mundial. Desenvolveu estudos sobre saúde e nutrição infantil e sobre a lepra. A abordagem foi orientada por especialistas, tendo em mira o desenvolvimento da saúde pública em bases científicas. Houve conferências, visitas e relatórios sobre a América Latina. O artigo demonstra que a colaboração da América Latina com aquela organização internacional de saúde foi ampla e multifacetada.(AU)The League of Nations Health Organization collaborated with Latin American specialists in public health and infectious diseases from the early 1920s to the outbreak of the Second World War. The League developed studies of infant health and nutrition, and leprosy. The approach was expert-oriented, and designed to develop public health on a scientific basis. There were conferences, tours and reports in Latin America. This paper demonstrates that the Latin American collaboration with the Health Organization was extensive and multi-faceted.(AU).

História/Epidemiologia

Crump A. Tore Godal: pragmatic opportunist championing global public health. Trends Parasitol 2006 Aug; 22(8):378-84.

Recently retired as head of the Global Alliance for Vaccines and Immunization (GAVI) secretariat and as a health advisor to leading global entities, Tore Godal is now a Special Advisor to the Norwegian Prime Minister. He is nevertheless continuing to fight for better global health, cogently articulating the needs of the world's poor and disadvantaged. He is a leading leprosy expert, ex-director of the world's premier agency for research and training in tropical diseases, instigator and prime mover of some global innovative public-private health sector partnerships, adept fund mobilizer, and advocate of the 'let's get it done' school of leadership. Few individuals are, therefore, more experienced or better suited for such a crucial and much-needed role.

História/Reabilitação

Banerjee A. Paul Brand (1914-2003): the surgeon who recognized the importance of pain. J Med Biogr 2006 Aug; 14(3):136-9.

Paul Brand was a leading contributor to the study of leprosy, a disease that is a major scourge of the developing world. In the course of his analysis of the deformity associated with leprosy he began to realize the importance of pain as a protective mechanism for which all should be grateful. His studies of biomechanics followed from his analyses of tendon function. Brand's work on leprosy was subsequently extended to other important conditions including diabetes mellitus and spinal cord injury.

Imunologia

Parkash O, Kumar A, Nigam A, Franken KL, Ottenhoff TH. Evaluation of recombinant serine-rich 45-kDa antigen (ML0411) for detection of antibodies in leprosy patients. *Scand J Immunol* 2006 Oct; 64(4):450-5.

The potential of the recombinant serine-rich 45-kDa antigen (ML0411) of *Mycobacterium leprae* to aid in detecting *M. leprae*-specific serum antibodies was assessed by an enzyme-linked immunosorbent assay (ELISA) in leprosy patients and controls comprising of tuberculosis patients, other unrelated skin-diseased patients and healthy individuals from India. All 18 multibacillary (MB) and 18/38 (47.4%) of the paucibacillary (PB) leprosy patients were found positive. None of the controls was positive, yielding complete (0/49) specificity in the series tested here. On the other hand, an anti-phenolic glycolipid-1 (PGL-I) antibody-detecting assay yielded detectable responses in 94.4% (17/18) of MB and 36.8% (14/38) of PB leprosy patients. Only two of 49 (4.1%) controls were positive, giving a specificity of 95.9%. Further, there was a good concordance (agreement of 83.8%; $\chi^2 = 40.3$, $P < 0.001$; kappa = 0.63) between the two assays. Thus, the 45-kDa-based assay was slightly better than anti-PGL-I antibody-detecting assay. Interestingly, when combining the results of both the assays together for all leprosy patients (MB + PB), the combined sensitivity was significantly higher than that of the anti-PGL-I antibody-detecting ELISA alone (73.2% versus 55.4%; $P < 0.05$), but not ($P > 0.05$) compared with the 45-kDa antigen-based assay alone. Similarly, in case of PB patients, using both assays in combination, the sensitivity was significantly higher compared with anti-PGL-I antibody-detecting assay alone (60.5% versus 36.8%; $P < 0.05$). While adopting the combinatorial approach, the specificity remained invariably high (>95%). In conclusion, the results of the present study indicate that the *M. leprae* 45-kDa protein is a potent B-cell antigen and may be a useful serodiagnostic reagent.

Imunologia e Genética

Dornelles LN, Pereira-Ferrari L, Messias-Reason I. Mannan-binding lectin plasma levels in leprosy: deficiency confers protection against the lepromatous but not the tuberculoid forms. *Clin Exp Immunol* 2006 Sep; 145(3):463-8.

Mannan-binding lectin (MBL) is an important component of the first-line defence against infections. Evidence has shown that MBL deficiency, reducing phagocytosis and internalization of intracellular pathogens may protect the host against intracellular infections such as leprosy. In this study, we speculated whether genetically determined low MBL serum levels confer protection against *Mycobacterium leprae* infection. One hundred and ninety-one patients with leprosy, presenting lepromatous ($n = 118$), tuberculoid ($n = 31$), dimorph ($n = 30$) and indeterminate ($n = 12$) clinical forms and 110 healthy controls matched with the patients according to sex, age and ethnic background were investigated. MBL concentrations were measured in a double-antibody enzyme immune assay and C-reactive protein (CRP) serum levels by nephelometry. A significant negative association of MBL low values (< 100 ng/ml) was observed with lepromatous patients when comparing with controls and tuberculoid patients [10/118, 8.47% versus 21/110, 19.09% $P = 0.03$ χ^2 with Yates' correction, odds ratio (OR) 0.39, confidence interval (CI) 0.18-0.88 and 8/31, 25.81%, $P = 0.02$, OR 0.27, CI 0.09-0.75, respectively]. There was no significant difference in the distribution of MBL levels between patients and controls or among the clinical forms. The concentration of CRP was significantly increased in the patients ($P = 0.0002$) and in the lepromatous form ($P = 0.0001$) when compared to controls. A weak positive correlation between MBL and CRP levels was observed in the patients ($P = 0.010$, $R = 0.255$). These data suggest a protective role for MBL deficiency against the development of the most severe and multi-bacillary form of leprosy.

Neurologia

Kumar S, Alexander M, Gnanamuthu C. Cranial nerve involvement in patients with leprous neuropathy. (Comment In: *Neurol India*. 2006 Sep;54(3):248-9). *Neurol India* 2006 Sep; 54(3):283-5.

BACKGROUND: Leprosy is one of the most common causes of peripheral neuropathy, perhaps closely matched by diabetic neuropathy. Patterns of peripheral neuropathy in leprosy can be varied, which may include mononeuropathy, mononeuritis multiplex and symmetric polyneuropathy. Cranial nerves, especially facial and trigeminal nerves, are also commonly involved in leprosy. **AIMS:** To find out the pattern and spectrum of cranial nerve involvement in a consecutive series of patients with leprous neuropathy. **SETTINGS AND DESIGN:** A retrospective review of patients admitted with leprosy to the Neurology Department of a tertiary care center. **MATERIALS AND METHODS:** All consecutive patients admitted during an 8-year period (1995-2003) and diagnosed to have leprosy were included. They were clinically evaluated to determine the frequency and pattern of cranial nerve involvement. **RESULTS:** About 18% (9/51) of the leprosy patients seen during that period had clinical evidence of cranial nerve involvement. Facial and trigeminal nerves were the most commonly affected (five and four patients respectively). **CONCLUSIONS:** Cranial nerve involvement is common in leprosy, which emphasizes the need to carefully examine them. Also, one should exclude leprosy in patients presenting with isolated cranial neuropathies.

Oftalmologia

Santos PM, Melo CM, Martins, SAR, Chaves AA, Sá DSP, Santos, RCR. Estudo da microbiota fúngica da conjuntiva ocular em portadores de hanseníase e seus comunicantes / Study of ocular fungal microbiota in patients with Hansen's disease and in individuals who deal with them. *Arq bras oftalmol* 2006 Nov-Dez; 69(6):915-918.

OBJETIVO: Investigar a microbiota fúngica de pacientes portadores de hanseníase residentes no hospital-colônia e seus comunicantes. **MÉTODOS:** Foram estudados por meio da cultura em meio de ágar-Saboraud-dextrose, o material do fórnice conjuntival, de sessenta e um pacientes portadores de hanseníase, residentes no hospital-colônia de Goiânia e 25 indivíduos que residiam ou trabalhavam com os referidos pacientes, no mínimo há cinco anos. **RESULTADOS:** Nos portadores de hanseníase foram isolados fungos da conjuntiva de 12 pacientes (19,67 por cento), sendo o gênero *Candida* o mais isolado, e no grupo controle de 5 indivíduos (20 por cento), em que o gênero mais isolado foi *Penicillium* spp. **CONCLUSÃO:** *Candida* foi o gênero predominante na flora conjuntival dos portadores de hanseníase: fato que poderia ser explicado pela imunodeficiência celular que estes pacientes apresentam, além do olho seco e uso prolongado de antibiótico.(AU) **PURPOSE:** To study the conjunctival fungal flora of patients with leprosy who live in the colony hospital and of those who deal with "Hansen" patients. **METHODS:** Sixty-one eyes (61 patients) with Hansen's disease and twenty-five healthy eyes (25 individuals) of individuals who deal with patients were investigated. **RESULTS:** Conjunctival fungi growth occurred in 19.67 percent and 20 percent of the patients and healthy individuals, respectively. There was no significant difference ($p < 0.05$) regarding fungi percentage of fungi isolated from the conjunctiva between both groups. *Candida* spp was the most frequent fungus isolated from the conjunctiva of patients with Hansen's disease, whereas *Penicillium* spp was the most frequent fungus isolated from the group of people who deal with these patients. **CONCLUSION:** The most frequent yeast isolated from conjunctival samples of leprosy patients was *Candida*, which could be explained by cellular immunodeficiency of these patients, associated with dry eye and the prolonged use of antibiotics.(AU).

Literatura corrente em hanseníase

Oftalmologia

Andrade Neto JL, Cunha AP, Barreto RBP, Arantes TEF, Santos LPF. Potencial visual evocado em portadores de hanseníase / Visual evoked potential in leprosy patients. Arq bras oftalmol 2006 Jul-Ago; 69(4):575-8.

OBJETIVO: Investigar as possíveis alterações no potencial visual evocado em portadores de hanseníase. **MÉTODOS:** Foram realizados exames de potencial visual evocado em 13 portadores de hanseníase, cinco da forma multibacilar e oito da paucibacilar, no momento do diagnóstico da doença. O grupo controle foi formado por 15 indivíduos saudáveis, sem hanseníase. **RESULTADOS:** Os valores das latências variaram de 102,0 a 120,5 ms, com média $110,1 \pm 5,7$ ms. Na forma multibacilar, os valores variaram de 109,0 a 120,0 ms, média $111,1 \pm 5,4$ ms. Na paucibacilar, de 102,0 a 120,5 ms, com média de $109,5 \pm 6,1$ ms. Os valores das latências foram significativamente maiores nos pacientes com hanseníase ($p < 0,0001$), mesmo se forem comparadas, separadamente, as formas multibacilar e paucibacilar. Não houve, porém, diferença significativa quando se compararam grupos pauci e multibacilar. **CONCLUSÃO:** Os valores das latências foram significativamente maiores nos pacientes com hanseníase, sendo recomendável a realização de PVE nesses pacientes, como forma de investigar precocemente suas complicações, bem como prevenir seus danos. (AU) **PURPOSE:** To verify the possible alterations in visual evoked potential of

leprosy patients. **METHODS:** Visual evoked potential examinations were performed in 13 Hansen disease patients, 5 of them with the multibacillary form and 8 with the paucibacillary. This was done at the moment of the diagnosis. The control group enrolled 15 health individuals, without Hansen disease. **RESULTS:** The measurement result varied from 102.0 to 120.5 ms, with a mean of 110.1 ± 5.7 ms. In the multibacillary form, the values varied from 109.0 to 120.0 ms, mean 111.1 ± 5.4 . In the paucibacillary, the values varied from 102.0 to 120.5 ms, with a mean of 109.5 ± 6.1 ms. The latency values were significantly greater in Hansen disease patients ($p < 0.0001$), even if multibacillary and paucibacillary forms were compared separately. However, there was no significant difference when the pauci- and multibacillary groups were compared. **CONCLUSION:** The latency values were significantly greater in leprosy patients. A recommendation can be made for these patients, which is to be submitted to early visual evoked potential as a rule in order to investigate ocular complications, as well as to prevent damages. (AU).

Oftalmologia/Microbiologia

Moreira AS, Santos RCR, Bastos RR, Silva JV, Santos PM. Baciloscopia da conjuntiva no diagnóstico e acompanhamento de pacientes portadores de hanseníase / Conjunctival bacilloscopy in leprosy diagnosis and follow-up. *Arq bras oftalmol* 2006 Nov-Dez; 69(6):865-869.

OBJETIVO: Estudar a presença do *Mycobacterium leprae* na conjuntiva ocular e validar a baciloscopia de conjuntiva como teste diagnóstico e de acompanhamento da hanseníase. **MÉTODOS:** Foi realizado raspado de conjuntiva tarsal superior em 52 pacientes portadores de hanseníase recém-diagnosticados (26 multibacilares e 26 paucibacilares) no período de julho a setembro de 2004 na clínica Oculistas Associados de Brasília e foram analisados os resultados da baciloscopia de conjuntiva a fim de compará-la com a baciloscopia da linfa (padrão-ouro). **RESULTADOS:** A avaliação da correlação entre o índice baciloscópico da conjuntiva (IBC) e índice baciloscópico da linfa (IBL) medida pelo coeficiente de correlação linear de Pearson é 76,3 por cento ($p < 0,01$). O teste qui-quadrado de Pearson também evidenciou associação entre IBL e IBC ($p < 0,01$). O índice k (medida de concordância kappa de Cohen) foi de 0,615 ($p < 0,01$). Dos 26 casos com IBL positivos, 17 tinham IBC positivo, demonstrando uma sensibilidade do IBC de 65,4 por cento (IC 95 por cento - 0,519-0,690). Dos 26 casos de IBL negativo, 25 eram IBC negativo, revelando especificidade de 96,2 por cento (IC 95 por cento - 0,826-0,998). O valor preditivo positivo é de 94,4 por cento e o valor preditivo negativo é de 73,5 por cento. A acurácia do teste é de 80,8 por cento. A razão de verossimilhança é 17. O tempo médio de negatificação do bacilo no olho é de 5 meses (IC 95 por cento - 3,57-6,43). **CONCLUSÃO:** Sugerimos a utilização da combinação de baciloscopia da linfa e baciloscopia de conjuntiva para confirmação do diagnóstico e classificação da

hanseníase e da baciloscopia de conjuntiva para acompanhamento do tratamento poliquimioterápico na hanseníase. (AU) **PURPOSE:** To identify *Mycobacterium leprae* in ocular conjunctivae and evaluate conjunctival bacilloscopy as leprosy diagnosis and follow-up test. **METHODS:** We used the superior tarsal conjunctiva scraping technique in 52 newly diagnosed leprosy patients between July and September 2004 at the "Oculistas Associados de Brasília", in Brasília, DF, Brazil, and compared the conjunctival bacilloscopy with skin bacilloscopy. **RESULTS:** Both the conjunctival bacilloscopy index (CBI) and skin bacilloscopy index (SBI) showed correlation since Pearson's r and Cohen kappa measure of agreement were respectively 76.3 percent ($p < 0.01$) and 0.615 ($p < 0.01$). Pearson chi-square also evidenced the correlation ($p < 0.01$). Comparison of CBI and SBI (17 cases of positive CBI out of 26 SBI) gives a sensitivity of 65.4 percent (CI95 percent - 0.519-0.690); 25 cases of positive CBI out of 26 cases of negative SBI give a specificity of 96.2 percent (CI95 percent - 0.826-0.998); positive predictive value of 94.4 percent; negative predictive value of 73.5 percent, and accuracy of 80.8 percent. Likelihood ratio was 17. Mean time to eliminate the bacilli from conjunctiva was 5 months (CI95 percent - 3.57-6.43). **CONCLUSION:** We suggest the use of conjunctival bacilloscopy in addition with skin bacilloscopy to confirm leprosy diagnosis. Conjunctival bacilloscopy may also be useful for treatment follow-up in leprosy. (AU).