

THESES

CLINICAL AND IMMUNOLOGICAL CHARACTERISTICS OF SYDENHAM'S CHOREA (ABSTRACT)*. **THESIS. BELO HORIZONTE, 2004.**

ANTÔNIO LÚCIO TEIXEIRA JÚNIOR**

Sydenham's chorea (SC) is one of the major criteria for the diagnosis of rheumatic fever. The clinical characteristics are neurological signs, such as choreic involuntary movements, reduced muscle tone and hypometric saccades, and behavioral abnormalities, including hyperactivity and obsessive-compulsive symptoms. Based on these signs and symptoms, we developed the UFMG Sydenham's Chorea Rating Scale (USCRS).

The initial testing of the first scale of SC indicated that USCRS is an instrument with high inter-rater reliability as well as internal consistency. We also evaluated the efficacy of methyl-prednisolone pulse-therapy in patients with severe forms of acute SC using the USCRS. Our data suggested that corticosteroid is an effective treatment of severe acute SC.

In our patients with SC, we have observed a high occurrence of drug-induced parkinsonism and migraine headache. We therefore decided to investigate the frequency of these syndromes in SC patients. We showed that 5.5% of our SC patients developed drug-induced parkinsonism during treatment with neuroleptics, while this complication was not seen in a cohort of Tourette's syndrome patients. We also demonstrated that migraine is more common in SC patients (21.8%) than in controls (8.1%).

The proposed pathogenesis of SC is immune-mediated basal ganglia dysfunction. This hypothesis is based on two main lines of evidence: the pres-

ence of anti-basal ganglia antibodies (ABGA) in serum and CSF of SC patients and the improvement of SC following immunomodulatory therapies. Antibodies could potentially damage basal ganglia directly or via the induction of central nervous system (CNS) inflammation. Then we evaluated the ability of complement-inactivated sera from SC patients and controls in altering calcium levels in PC12 neuroendocrine cells.

Incubation of PC12 cells with serum from SC patients was associated with a significant increase in calcium levels evoked by KCl (341.0 ± 8.7 % of fluorescence AU) stimulus when compared with incubation with control serum (313.8 ± 8.7 % of fluorescence AU, $p=0.01$). As this effect is not mediated by complement, it may be related to the presence of ABGA in SC patients serum.

We also sought to investigate the profile of expression of chemokines in patients with SC, since chemokines seem to play a role in CNS inflammation by mediating the recruitment and/or activation of T cells and other leukocytes. Increased serum levels of MIG/CXCL9 and IP-10/CXCL10 were demonstrated in acute SC patients, suggesting that a particular group of chemokines may be involved in SC pathogenesis.

KEY WORDS: Sydenham's chorea, rating-scale, parkinsonism, migraine, anti-basal ganglia antibodies, chemokines.

* Características clínicas e imunológicas da coreia de Sydenham (Resumo). Tese de Doutorado, Instituto de Ciências Biológicas da Universidade Federal de Minas Gerais (Área: Biologia Celular). Orientador: Francisco Eduardo Costa Cardoso.

**Address: Alameda das Amendoeiras 581, Ouro Velho, 34000-000 Nova Lima MG, Brasil. E-mail: altexjr@hotmail.com

CLINICAL AND DEMOGRAPHIC CHARACTERISTICS OF INSOMNIA IN THE ADULT POPULATION OF SÃO JOSE DO RIO PRETO, BRAZIL. (ABSTRACT)*. **THESIS. SÃO JOSE DO RIO PRETO, 2004.**

NELY SILVIA ARAGÃO DE MARCHI**

Our study has examined the prevalence of insomnia of the urban adult population ($n=1,105$) in São Jose do Rio Preto, SP, Brazil, in the period from January 10 to February 28, 2001.

Using a structured questionnaire and DSM-IV and DSM III-R criteria, we found that the overall prevalence of insomnia was 32%. Among the acute cases, 46.8% presented initial insomnia, 31.9% inter-

mediate, and 21.3% terminal. According to the chronic cases, 41% showed initial insomnia, 40% intermediate, and 19% terminal.

Insomnia was more associated with female sex, divorced and widows, the lowest income classes D/E, low educational degree, and less associated with younger age group (18-30 years old). Sleep-promoting medication was used by 48% of the insomni-

acs; only 17.5% of them visited a physician with the purpose to complain insomnia.

Our findings showed that the insomnia prevalence in the adult population of São Jose do Rio Preto may be compared with the population of North American and European countries as well as other Brazilian cities.

KEY WORDS: insomnia, epidemiology, prevalence.

*Características clínicas e demográficas da insônia na população adulta urbana de São José do Rio Preto (Resumo). Tese de Doutorado. Faculdade de Medicina de São José do Rio Preto (Área Medicina Interna). Orientador: Waldir Antonio Tognola; Co-Orientador: Rubens Reimão.

**Address: Avenida Brigadeiro Faria Lima 5416 15090-000 São José do Rio Preto SP, Brazil.

CHARACTERIZATION OF *TAENIA CRASSICEPS* CYSTICERCIC AND THEIR APPLICATION TO DIAGNOSIS OF THE HUMAN CYSTICERCOSIS (ABSTRACT)*. **THESIS. SÃO PAULO, 2004.**

NOELI MARIA ESPÍNDOLA**

Taenia crassiceps cysticercic were kept in vitro during 144h. Excretory / secretory (ES) antigens (peptides of <30kDa) were identified in 24 (ES24) and 48h (ES48). ES peptides (30-, 18- and 14-12-kDa) were recognized by polyclonal antibodies in sera from rabbits immunized with *Taenia crassiceps* (Tcra) and *Taenia solium* (Tso) antigens, and also by antibodies in samples of serum and cerebrospinal fluid (CSF) from patients with neurocysticercosis (NC).

Monoclonal antibodies (MoAb) were prepared against ES-Tcra, Tcra vesicular fluid (VF-Tcra), Tso vesicular fluid (VF-Tso), Tso total (T-Tso) and scolex (E-Tso) antigens.

Twenty-four MoAb were obtained and they were used for the characterization of Tcra and Tso antigens, and for the antigen detection in samples of patients with NC. Nine MoAb (1 anti-ES-Tra, 1 anti-VF-Tcra, 3 anti-VF-Tso and 4 anti-T-Tso) reacted with peptides in the Tcra (18- and 14-12-kDa) Tso (14-12kDa) antigens. These low-molecular-

weight peptides have been considered the immunodominant and specific antigen for the diagnosis of NC.

The MoAb maintained their reactivity towards VF-Tcra antigen treated with heat and alkaline borohydride and showed reduction after trichloroacetic acid and periodate oxidation treatments. These results indicate that the 18- and 14-12-kDa fractions are glycoproteins.

Peptides of <20kDa in VF-Tcra antigen were purified by anti-Tcra MoAb and were used to detect antibodies in serum and CSF from patients with NC. Anti-Tcra and anti-Tso MoAb were used to detect antibodies by a competitive assay, and anti-Tcra MoAb to detect antigens in serum and CSF from patients with NC. The results showed a better performance than the use of brute antigens or polyclonal antibodies.

KEY WORDS: *Taenia crassiceps* antigens, neurocysticercosis diagnosis, cerebrospinal fluid.

*Caracterização de antígenos de cisticercos e sua aplicação para o diagnóstico da cisticercose humana (Rsumo). Tese (Doutorado), Universidade de São Paulo (Área: Análises clínicas). Orientador: Adelaide José Vaz.

**Adress: Departamento de Análises Clínicas e Toxicológicas da Faculdade de Ciências Farmaceuticas da USP. Avenida Prof. Lineu Pretes 580 bloco 17, 05508-900 São Paulo SP, Brasil. E-mail: ajvaz@usp.br

INTRASELLAR PRESSURE IN PITUITARY TUMORS. RELATION STUDY: INTRASELLAR PRESSURE vs HYPOTHALAMIC – PITUITARY FUNCTION. (ABSTRACT)*. **DISSERTATION. SÃO PAULO, 2004.**

JACKSON AUGUSTO GONDIM OLIVEIRA**

Between August 2002 and May 2003, 30 patients with pituitary adenomas had their intrasellar (tu-

moral) pressure measured during transsphenoidal endoscopic surgery for these tumors. The age var-