

THESES

CRANIOPHARYNGIOMAS: INTRATUMORAL CHEMOTHERAPY WITH BLEOMYCIN IN CHILDREN AND ADOLESCENTS (ABSTRACT)*. **THESIS. SÃO PAULO, 1997.**

*NELCI ZANON***

In 1985, Takahashi et al. published the promising results of seven patients with craniopharyngioma treated with intratumoral bleomycin. Since then, two series (Broggi et al., 1989; Mottolese et al., 1996) of patients receiving the same type of treatment, with 18 patients each series, appeared in the literature. In this study we are presenting 21 patients, 10 males and 11 females, with predominantly cystic craniopharyngioma, submitted to this intratumoral modality of treatment. Their age span from 3 to 19 years old.

Eleven cases were treated in neurosurgical departments in France and ten patients were treated in Brazil. The tumoral lesions were primary in 19 cases and recurrences in two cases. The length of time between the beginning of the symptoms and the diagnosis varied from one month to three years. The association of endocrine and visual symptoms and symptoms related to intracranial hypertension were the most common clinical presentations. Endocrinopathies as isolated symptoms were present in seven patients.

The technique for insertion of the catheter in the tumor cyst was microsurgical through a craniotomy in nine cases, stereotactically in nine cases and through a burr hole in three cases. The dose of bleomycin used varied from 2 to 10 mg per injection. The injections of the drug were done daily or in alternated days. The average total doses of bleomycin was 60 mg for each cycle. Seventeen patients received only one cycle of bleomycin, while three patients received two cycles and one patient received three cycles. The length of the follow-up varied from three months to six years.

The results were classified as good in 13/21 cases. Among them the tumor completely disappeared in three, and in nine patients occurred a reduction in size of more than 50%.

The technique used in this series did not add any endocrinological morbidity. Two complications were detected: a transient optic neuritis during the second cycle of treatment and a seizure probably related to extratumoral leakage of the drug. Only three patients presenting with hydrocephalus demanded surgical diversion of cerebrospinal fluid before the intratumoral treatment with bleomycin.

Six patients from the series were submitted to craniotomy for direct approach of the tumor after treatment with bleomycin. Three because of the cystic recurrence: two because of the complications previously mentioned and one to approach the solid part of the tumor. One patient received radiotherapeutic treatment for control of the solid part of the craniopharyngioma after treatment with bleomycin.

KEY WORDS: craniopharyngioma, intratumoral chemotherapy, bleomycin.

*Craniofaringiomas: quimioterapia intratumoral com bleomicina em crianças e adolescentes. Tese de Mestrado, Escola Paulista de Medicina – Universidade Federal de São Paulo, UNIFESP (Área: Neurocirurgia). Orientador: Sérgio Cavalheiro.

**Address: Rua Apeninos 471 / 115, 01533-000 São Paulo SP, Brasil.

POST-TRAUMATIC TEMPORAL LOBE LESIONS: NATURAL HISTORY AND TREATMENT (ABSTRACT)*. **THESIS. SÃO PAULO, 1997.**

*ALEXANDRE VARELLA GIANNETTI ***

This is a prospective study of 69 patients with traumatic temporal lobe lesions (TTLL). Computerized tomography (CT) scans were performed in the first 36 hours, 7 and 30 days after the trauma. Lesions were

classified into anterior, posterior and anterior-posterior in relation to a coronal plane immediately anterior to the cerebral peduncles. The investigation aimed to assess the natural history and to identify criteria for indication of surgical treatment of these lesions.

Forty patients with the first CT scan performed within 12 hours after trauma were selected for study of the natural history of TLL. Hyperdensity (hemorrhage) enlarged in 35% of studied subjects. Interval between trauma and initial care at the emergency room of three hours or less predicted increase in hemorrhage. Age, accident speed, alcohol abuse, coagulation changes, and presence of decompressing factors were not statistically related to enlargement of hyperdensity. These findings are consistent with the development of several foci of hemorrhage at the trauma with subsequently enlarge and merge. There was increase of hypodensity (necrosis and edema) in half of studied subjects, 36 hours and seven days after trauma. There was no relationship between these findings, evolution or size of the hemorrhage as well as its surgical treatment.

Conservative treatment of the patients was related to the presence of one or absence of all of the following parameters on CT scan: shift of midline structures, change of aspect of ventricles, cisterns and sulci. Patients displaying all of them required surgical drainage. Among the operated lesions, there was an inverse relationship between the size of transverse diameter and anterior location (i.e., the more anterior the operated lesion, the smaller its diameter).

KEY WORDS: head injury, temporal lobe lesions, CT scan, neurosurgery.

*Lesões traumáticas do lobo temporal: evolução natural e tratamento (Resumo). Tese de Mestrado, Escola Paulista de Medicina – Universidade Federal de São Paulo, UNIFESP (Área: Neurocirurgia). Orientador: Mirto Nelso Prandini.

**Address: Rua Agripa Vasconcelos 230, 30210-030 Belo Horizonte MG, Brasil.

HOFFMAN REFLEX (H-REFLEX) OBTAINED IN SUBJECTS OF BOTH SEXES, RANGING FROM 20 TO 80 YEARS OLD (ABSTRACT)*. **DISSERTATION. RECIFE, 1997.**

*MARCO AURÉLIO SMITH FILGUEIRAS ***

The main objective of this study was to evaluate possible alterations of the Hoffmann reflex depending on the age, in 91 subjects, of both sexes, ranging from 20 to 80 years old.

H-reflexes were obtained from soleus and gastrocnemius muscles, applying a weak electrical stimulation in the Ia intrafusal fibers in the tibial nerve, at the popliteal region of both inferior limbs. Stronger stimulation is necessary for the recruitment of all muscle motor units (fast and slow fibers), giving rise to a maximal direct motor response. In order to compare reflex response in various ages we measured parameters such as stimulus intensity, latency (response time) reflex amplitude and the ratio between maximal H reflex and maximal M response (H_{max} / M_{max}).

There were significant statistical differences with respect to stimulus intensity, stronger stimulus being necessary for older subjects. Stronger stimulus intensity was also necessary for women than for men. This may be due to a greater resistance to pulse current in women, as a result of a thicker fat layer. Latency was greater in men than in women because men are taller, however latency was always longer in older subjects. Amplitude of reflex responses decreased with age, starting at age 40. This decrease was greater and statistically significant from ages 60 to 80. The ratio H_{max} / M_{max} decreased with age mainly due to reflex amplitude decrease.

The results of this work lead to the following information:

- a) there is no age influence in H reflex parameters for subjects in the range of 20 to 40 years of age. In this great young adults age range, reflex differences were observed among sexes, due to morphological and functional features, stronger stimulus intensity being necessary for women. Latency for men were longer because men have longer legs (longer reflex arc);
- b) stimulus intensity has to be stronger for older subjects;
- c) latency of reflex response increases significantly in advanced ages;

- d) the amplitude of the reflex responses decreases as age increases;
 e) the maximal H reflex to maximal M response (H_{max} / M_{max}) decreases with increasing age.

KEY WORDS: H-reflex, age, older subjects, sex, Hmax / Mmax.

*Reflexo de Hoffmann (reflexo H) obtido de pessoas de ambos os sexos, com idade variando de 20 a 80 anos (Resumo). Dissertação de Mestrado, Universidade Federal de Pernambuco (Área: Neuropsiquiatria). Orientador: Manuel Moreira da Costa.

**Address: Avenida Monteiro da Franca 1063, 58038-320 João Pessoa PB, Brasil.

THE SPONTANEOUS BLINK RATE: A REPORT ON 32 CASES WITH PARKINSON'S DISEASE (ABSTRACT)*. **THESIS. NITERÓI, 1997.**

*MARCIO LUCIANO DE SOUZA BEZERRA***

In contrast to behavioral indexes, the spontaneous blinking is easily gauged in routine clinical examinations. The decrease of spontaneous blink rate (SBR) in Parkinson's disease (PD) is a classical example of a brain disorder affecting blinking.

The present investigation deals with 32 patients with PD, mean age 70 years, as defined by Calne et al. (1992) criteria, and staged by Hoehn e Yahr scale, without dementia or levodopa-induced dyskinesias. Their SBR was compared to a sample of 33 normal subjects, mean age 42 years.

The analysis of spontaneous and attentional blinking showed a significant lower rate in the patient group ($p = 0.001$).

In contrast with most cases in the literature there was no relationship between SBR and Hoehn & Yahr stages of PD.

KEY WORDS: Parkinson's disease, blinking, spontaneous blink rate.

*O piscar de olhos espontâneo: a propósito de 32 pacientes com a doença de Parkinson (Resumo) Tese de Mestrado, Faculdade de Medicina da Universidade Federal Fluminense (Área: Neurologia). Orientador: Pedro Ferreira Moreira Filho.

** Address: Rua Marques de Paraná 191 / 1005, 24030-210 Niterói RJ, Brasil.

THE RELEVANCE OF TEMPORAL LOBE AS EPILEPTOGENIC ZONE AND SYMPTOMATOGENIC ZONE IN EPILEPSY ASSOCIATED TO ABNORMAL INTRACRANIAL CALCIFICATIONS (ABSTRACT)*. **DISSERTATION. CURITIBA, 1998.**

*PEDRO ANDRÉ KOWACS **

To test the hypothesis that the temporal lobe is relevant in determining the clinical behavior of epilepsy associated to intracranial calcifications suggestive of neurocysticercosis, severity of epilepsy (Pazzaglia criteria, modified), seizure symptomatology, location and number of intracranial calcifications, and location of interictal EEG foci were compared between three groups of epileptic individuals.

Patients were serially selected at the outpatient clinic of the Hospital de Clínicas – UFPR, at Curitiba, Brazil: a group of patients with epilepsy and intracranial calcifications, but without interictal EEG foci (group A, n=24); other with epilepsy, intracranial calcifications, and interictal EEG foci (group B, n=23); and a third group with epilepsy and interictal EEG foci, but without intracranial calcifications (group C, n=21).

EEG abnormalities located over the temporal lobe in 23 patients of group B, and in 23 patients of group C. While initial seizure symptoms presented by groups B and C patients were suggestive of those related to temporal lobe seizures in most cases, they related to somato-sensory cortex in most of group A patients. Epilepsy was more severe in groups B and C than in group A patients ($p=0.0001$ and 0.0054 , respectively), but there was no difference in severity between groups B and C. Differences in severity

could be attributed to the occurrence of high frequency partial seizures (group B) and secondarily generalized seizures (groups B and C). There was not a direct relationship between the number of calcifications and severity of epilepsy in groups A and B.

The study confirmed the hypothesis that in epilepsy associated to intracranial calcifications suggestive of neurocysticercosis, involvement of temporal lobe in the epileptogenic process is relevant in determining seizure symptoms and frequency, and severity of the epilepsy, irrespective to the number and location of intracerebral calcifications.

KEY WORDS: epilepsy, temporal lobe, intracranial calcifications, neurocysticercosis.

*A relevância do lobo temporal como área irritativa e sintomatogênica na epilepsia associada a calcificações intracerebrais (Resumo). Dissertação de Mestrado, Universidade Federal do Paraná – UFPR (Área: Medicina Interna). Orientador: Lineu César Werneck.

**Address: Rua Tenente João Gomes da Silva 140, 80810-100 Curitiba PR, Brasil.

CARPAL TUNNEL SYNDROME: CLINICAL, EPIDEMIOLOGICAL AND NERVE CONDUCTION STUDIES IN 668 CASES (ABSTRACT)*. DISSERTATION. SÃO JOSÉ DO RIO PRETO, 1998.

*JOÃO ARIS KOUYOUMDJIAN ***

Between January 1989 and June 1996, 1059 carpal tunnel syndrome hands (CTS) from 668 patients were studied. None had been previously operated and all had bilateral conduction studies; peripheral neuropathy was excluded. The patients were selected with sensory median/radial difference (MRD) ≥ 1.0 ms that strongly supports electrodiagnosis of CTS (standard deviation > 6) after simultaneous stimulation on wrist and recording on thumb.

The age ranged from 17 to 83 years (mean 47.5) and 91.3% were female; the complaints were bilateral in 72% and nocturnal/awakening in 85.3%; pain, numbness and paresthesia occurred in 64.4%; pain as the only symptom was rare but proximal extension was frequent (39.4%); all fingers were symptomatic in 42.5%, followed by middle, middle-ring, thumb-index-middle and then index-middle-ring ones; there was no correlation with traumatic past history on wrist. The duration of CTS symptoms ranged from 1 to >120 months without precise correlation with the severity of conduction abnormalities on median nerve.

MRD ≥ 1.0 ms correlates in 95% with median nerve distal motor latency >4.25 ms (80 mm distance) and with median distal sensory latency to index finger ≥ 3.01 ms, middle finger ≥ 3.14 ms and ring finger ≥ 3.26 ms, all of them 140 mm distance antidromic and onset-measured.

The results have brought new values for the limit of normality in our EMG laboratory since MRD ≥ 1.0 ms is very sensitive for CTS diagnosis.

KEY WORDS: carpal tunnel syndrome, entrapment neuropathy, electroneuromyography.

*Síndrome do túnel do carpo: aspectos clínico-epidemiológicos e de condução nervosa em 668 casos (Resumo). Dissertação de Mestrado, Faculdade de Medicina de Ribeirão Preto (Área: Biologia Médica). Orientador: Alceu Gomes Chueire.

**Address: Avenida Bady Bassitt 3896, 15025-000 São José do Rio Preto SP, Brasil FAX 017 232 7757. E-mail: jaris@zaz.com.br

HEADACHE IN CHILDHOOD AND ADOLESCENCE: CLINICAL AND LABORATORY ASPECTS (ABSTRACT)*. THESIS. CAMPINAS, 1998.

*ABRAM TOPCZEWSKI ***

Seventy-two children and adolescents, 3-18 years old, with headache complaint were seen in walk-in clinic. After neurological examination they were submitted to laboratory exams, electroencephalogram, CT scan, SPECT and psychological evaluation.

The CT scan and the SPECT showed abnormal results in 16.67% and 29.41% patients respectively. These findings provide that the CT scan and the SPECT have a special place in the evaluation of children and adolescents with headache.

The psychological tests for emotional status were performed and were abnormal in 54.6% patients. We consider that the psychological tests have to be performed in patients with headache, especially with migraine.

KEY WORDS: headache, migraine, child, adolescent, TC scan, SPECT, psychological tests.

* Cefaléia na infância e adolescência: aspectos clínicos e laboratoriais (Resumo). Tese de Doutorado, Faculdade de Ciências Médicas da Universidade Estadual de Campinas, UNICAMP (Área: Neurociências). Orientadora: Maria Valeriana Leme Moura-Ribeiro..

** Address: Avenida Albert Einstein 627 sala 392, 05651-901 São Paulo SP, Brasil.

EEG QUANTITATIVE ANALYSIS IN PATIENTS WITH ROLANDIC EPILEPTIFORM DISCHARGES. (ABSTRACT)*. THESIS. SÃO PAULO, 1998.

*NADIA IANDOLI DE OLIVEIRA BRAGA ***

The importance of localization and morphologic features of interictal epileptiform discharges in patients suspected of having epileptic seizures is well known. Rolandic discharges (RD) have been reported in association to benign rolandic epilepsy of childhood (BREC), a common type of epilepsy in children that has well defined clinical features, familiar traces, no neurological lesion and good prognosis. These patients present an EEG with normal background activity on visual analysis. RD, however, may occur in other clinical situations besides BREC. Recent advances in EEG equipments became quantitative analysis both of background activity and epileptiform discharges available. Previous studies using spike averaging reported some morphological features, the occurrence of tangential dipole and "double spike" in RD in association with clinical features and prognosis.

We studied the EEGs of 24 children with RD and made quantitative analysis of background activity and RD, comparing individual discharges with averaged ones, maximal negativity localization, tangential dipole and "double spike" occurrence and clinical associations.

We concluded that background activity has significant differences when compared to normal group, not the same in different ages, not influenced by neurological lesion or use of medication; individual RD can show tangential dipole in as much as 20% and "double spike" in 45% with no occurrence at the averaged spike; central is the main localization, and temporal is more frequent in RD with tangential dipole; in patients with typical BREC, tangential dipole occurred in 76.92% and "double spike" in 53.8%; there were no association between tangential dipole or "double spike" and neurological lesion.

KEY WORDS: electroencephalography, rolandic epilepsy, brain mapping.

*Análise quantitativa do eletrencefalograma de pacientes com descargas epileptiformes rolandicas (Resumo). Tese de Doutorado, Escola Paulista de Medicina – Universidade Federal de São Paulo, UNIFESP (Área: Neurologia). Orientador: João Antonio Maciel Nóbrega.

**Address: Rua Siqueira Bulcão 90, 04218-060 São Paulo SP, Brasil. E-mail: niobraga@uol.com.br

CLINICAL DISCRIMINATORS BETWEEN ACUTE BRAIN HEMORRHAGE AND INFARCTION: A PRACTICAL SCALE FOR EARLY PATIENT IDENTIFICATION (ABSTRACT)*. THESIS. SÃO PAULO, 1998.

*AYRTON ROBERTO MASSARO ***

New treatments for acute stroke require a rapid triage system which minimizes treatment delays and maximizes selection of eligible patients. Our aim was to create a score for assessing the probability of

brain hemorrhage among patients with acute stroke based upon simple, clinical information available prior to hospitalization.

Of 1805 patients with acute stroke in the Stroke Data Bank (SDB), 1273 had infarction (INF) and 237 had parenchymatous hemorrhage (HEM) verified by CT. INF and HEM discriminators were determined by logistic regression and used to create a score. Receiver operating characteristic curve was used to maximize sensitivity and specificity of HEM.

The SDB score components favoring HEM over INF were men, those presenting with severe headache, vomiting, coma or decreased consciousness, an initial blood pressure > 220/120 mmHg, or if one or more than one of the clinical variables were unmeasurable. Age >55, history of angina, prior stroke or TIA, diabetes, deficit upon awakening, and presentation with a focal deficit gave score favoring INF. For predicting HEM (SDB score \leq 2), sensitivity was 76% and specificity was 83% in the SDB cohort.

Use of a practical validated score by emergency personnel can help to select patients for stroke trials and pre-hospital treatments, alert CT scan technicians, and warn stroke teams of incoming patients to reduce treatment delays.

KEY WORDS: cerebrovascular disorders, cerebral hemorrhage, cerebral ischemia.

*Proposta de uma nova escala de avaliação clínica para o diagnóstico diferencial entre acidente vascular cerebral isquêmico e hemorrágico (Resumo). Tese de Doutorado, Faculdade de Medicina da Universidade de São Paulo - FMUSP (Área: Neurologia). Orientador: Milberto Scaff.

**Address: Clínica Neurológica do Hospital das Clínicas da FMUSP, Av. Dr. Enéas de Carvalho Aguiar 255 / 5º. andar, 05403-000 São Paulo SP, Brasil.



THESES é seção de *Arquivos de Neuro-Psiquiatria* que divulga os resumos em inglês de teses defendidas e aprovadas. O assunto da tese deve estar relacionado a aspectos clínicos ou experimentais de interesse em neurologia, ciências a ela afins e psiquiatria.

Para publicação, o Autor deve encaminhar ao Editor: *abstract* da tese, acompanhado do *título em inglês* e em português; *key words*; *disquete* com a reprodução desses dados.

Adicionalmente, o Autor deve informar: a natureza da tese (Dissertação/Tese de Mestrado, Tese de Doutorado, Tese de Livre-Docência - como exemplos); nome da instituição na qual foi defendida e respectiva área de concentração; nome do Orientador, quando for o caso; endereço para correspondência.