

RISK OF MIGRAINE IN ATRIAL SEPTAL DEFECTS CARRIERS (ABSTRACT)*. DISSERTATION. SALVADOR, 2005.**ELZA MAGALHÃES****

The association between atrial septal defect (ASD) and migraine has been reported by several authors. The majority of such reports, however, are series of cases. The power of this association is hampered by the lack of analytic studies.

Objective: To determine the magnitude of the association between ASD and migraine.

Method: Case-control study. We evaluated 101 patients submitted to transesophageal echocardiography (TEE) from January to December 2004. An interview was carried out prior to the TEE in order to establish the diagnosis of migraine, according to the International Headache Society criteria. The subjects were divided into two groups: cases (ASD carrier) and controls (without ASD). They were matched by sex, age and social class. The following variables were analyzed: 1. proportion of migraine in each group, 2. occurrence of aura, and 3. more than three crises per month in migraine carriers in each group. The proportion of events was compared and the differences of occurrence of migraine analyzed by the chi-square test. The odds ratio (OR) and the 95% confidence interval (CI) were calculated. It was considered significant the p value ≤ 0.05 .

Results: The mean age of the 101 subjects was 37.7 (SD=11.2); 83.2% were female; 48.3% had ASD and 61.9% (58 subjects) had migraine, 51% of which reported aura. After matching, the results between cases/controls were: number of patients (34/34), female gender (82.4%/82.4%); mean age in years 38.7 (SD 11.24) / 38.9 (SD 11.17); frequency of migraine 67.6%/32.4% (OR=4.3) (95% CI, 1.04 to 8.8), ($p=0.038$). The 58 migraine sufferers were divided in two groups: *Group 1*, 39 subjects with ASD, mean age 34 years old (SD 11), 93% female gender. *Group 2*, 19 subjects without ASD, mean age 35 years old (SD 9.6), 68% female gender. When asked about the occurrence of more than three migraine crises in the last month, 76.7% of Group 1 and 60% of Group 2 answered yes (OR=1.56; $p=0.2$; 95% CI, 0.6 to 7.6). Aura occurred in 65.1% of the Group 1 and 40% of the Group 2 (OR=2.8; 95% CI, 0.8 to 9.3; $p=0.08$).

Conclusion: These results suggest that ASD is a risk factor for migraine and that migraine carriers with ASD have higher tendency for the occurrence of aura and a higher number of migraine crises for month than migraine carriers without ASD.

KEY WORDS: migraine, atrial septal defect, risk factor.

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ULTRASONIC OBSERVATIONS OF FETAL MOVEMENT PATTERNS AND INDIVIDUALITY IN LOW-RISK PREGNANT WOMEN (ABSTRACT)*. DISSERTATION. RIBEIRÃO PRETO, 2004.**THEODOLINDA MESTRINER STOCHE****

Introduction: Real-time visual exploration of fetal activity began in the 1960's, when ultrasound techniques first appeared. Its use allowed great progress in the studies of the dynamics motor and neurological development, both in normal and pathological conditions.

Objective: The aim of this study was to carry out regular ultrasound exams in healthy fetuses, with purpose in evaluating the fetus motor development, registered in video cassette recordings; verify the presence or absence of fetal motor and behavioral individuality; describe and discuss the parents behavior during the exams.

Method: Six fetuses from desired spontaneous low-risk pregnancies were selected for the study. These fetuses were observed regularly each four weeks, for one hour, from the 12th week of pregnancy up to birth. Based in the characterization established by Prechtl (1989), the following features were registered: presence or absence of different patterns of movement, in individual fetal,

and parents, behavior during the exams. The study comprised only fetuses which originated normal neuropsychomotor and behavioral development children, having these children been followed up until the age of 8 years-old.

Results: All pregnancies came to term without major problems. The pre-natal follow up accomplished, as well as the clinical and ultrasonographic development of the fetuses, were regarded as normal. The analysis in movement groups by period has shown that some movement patterns were more often observed in the beginning of pregnancy, such as shocks, generalized movements and trunk movements. Certain types of movement remained at a stable frequency, while others had their frequency increased. Somersault and creep movements were only observed between the 16th and 28th weeks. Transversal analysis of the different kinds of movement showed that movements occurred with greater frequency by the 20th week of pregnancy, followed by progressive decrease until birth. Complex movements were sel-

dom observed in the beginning of pregnancy, increasing from the 20th week on (breathing, suckling and swallowing). These common characteristics suggest a general pattern of motor development with individual variations.

Conclusion: (A) There is a determined motor pattern with occurrence and subsequent disappearance of the several types of movements according to the pregnancy moment; (B) the fetal motor behavior presents vari-

ations, suggesting individuality; and (C) Father behavior has shown different from mother behavior (check with Theo). Men were usually silent and showed greater concern with the fetus' and wife's well-being, while women recognized and identified characteristics of their future child. All the children presented normal motor and neurological development, being assessed until eight years of age.

KEY WORDS: atividade motora fetal, movimentos.

*Observações sobre padrões e individualidade de movimentos fetais através de ultra-sonografia em gestantes de baixo risco (Resumo). Dissertação de Mestrado, Universidade de São Paulo, USP (Área: Neurociências). Orientadora: Carolina A. R. Funayama.

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MAGNETIC RESONANCE SPECTROSCOPY IN THE DIFFERENTIAL DIAGNOSIS OF PARKINSONISM (ABSTRACT)*. DISSERTATION. RIO DE JANEIRO, 2004.

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The differential diagnosis of parkinsonism, mainly degenerative ones, may be difficult, because there isn't any specificity of signals and symptoms. In these cases magnetic resonance and spectroscopy may be useful.

A comparative, prospective case-control study was performed, with the objective of evaluating the diagnosis of parkinsonism by image.

In a period of 24 months 26 patients were selected being ten with probable diagnosis of Parkinson's disease, ten with progressive supranuclear palsy, and six with multiple system atrophy. The control group consisted of ten individuals without neurological and psychiatric manifestation. Clinic assessment was made in Clementino Fraga Filho Hospital and in the Institute of Neurology Deolindo Couto and the magnetic resonance in Pró-Cardíaco Hospital. The scales used for clinical assessment were Hoehn-Yahr, UPDRS-motor and mini-mental state examination (MMSE). Image protocols analyzed cerebral and cerebellar atrophy, signal change on white matter, lentiform nucleus and brainstem, diameter of ventricular system and structures in the brainstem. The spectroscopy (Naa/Cr and Naa/Col) was performed on lentiform nucleus, frontal lobe, hippocampus and midbrain.

The results demonstrated that clinical assessment was worse on patients with multiple system atrophy and progressive supranuclear palsy through motor sca-

les. The MMSE of patients had lower scores as compared to control group. Cerebral and cerebellar atrophy were more prevalent in progressive supranuclear palsy and multiple system atrophy, with statistic significance. The increased linear sign on putamen (dorsolateral), as well as increased sign on midbrain and pons had been observed exclusively in patients with multiple system atrophy and progressive supranuclear palsy, being these findings, therefore, suggestive of these diagnoses. Midbrain and pons diameter in progressive supranuclear palsy group was reduced as compared to others, with statistic significance. Increased ventricular system was observed more frequently and intensively in multiple system atrophy and progressive supranuclear palsy. The relations Naa/Cr of lentiform nucleus and of hippocampus and Naa/Col of midbrain in the progressive supranuclear palsy were reduced having statistic significance. The Naa/Cr relation of hippocampus was reduced in all patients showing correlation with MMSE.

The resonance and spectroscopy in selected areas was useful in the differential diagnosis between controls and Parkinson's disease versus multiple system atrophy and progressive supranuclear palsy.

KEY WORDS: parkinsonism, magnetic resonance, spectroscopy, Parkinson's disease, multiple system atrophy and progressive supranuclear palsy.

* Ressonância magnética com espectroscopia no diagnóstico diferencial das síndromes parkinsonianas. (Resumo). Dissertação de Mestrado, Universidade Federal do Rio de Janeiro (Área: Neurologia). Orientadores: Denise Madeira Moreira e Sergio Augusto Pereira Novis.

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