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.

LUIZ FELIPE ROCHA VASCONCELLOS**

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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