

The results showed that gabapentin, vigabatrin, lamotrigine and morphine decreased significantly the scratching and biting behaviors, as well as reverted allodynia and hyperalgesia. In addition, morphine administered in PAG reduced significantly the scratching and biting behaviors, and this effect was reverted by naloxone. Lidocaine, in its side, did not change the increased scratching and biting behaviors.

Our results may conclude that the behaviors sugges-

tive of chronic neuropathic pain (scratching and biting) are inhibited by drugs with gabaergic action, blocking effect on Ca<sup>++</sup> and Na<sup>+</sup> channels and through PAG stimulation with morphine, as well as PAG inhibition with morphine/naloxone and lidocaine. These results reinforce the interpretation of these behaviors as suggestive symptoms of chronic neuropathic pain.

**KEY WORDS:** pain, neuropathic chronic pain, experimental, PAG.

\*Correlação anatômica-comportamental-farmacológica dos parâmetros de dor neuropática crônica experimental animal (Resumo). Tese de Doutorado, Universidade Federal do Ceará (Área: Farmacologia). Orientador: Carlos Mauricio Castro Costa.

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**STUDY OF MAGNETIC RESONANCE OF 1,0 T AS A METHOD OF IMAGING IN VIVO OF THE EXPERIMENTAL HYDROCEPHALUS: ON THE APPLICATION OF THE METHOD TO EVALUATE THE SIZE OF THE VENTRICLES IN RATS SUBMITTED TO VENTRICULAR SHUNTS (ABSTRACT)\*. **THESIS. RIBEIRÃO PRETO, 2003.****

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Magnetic resonance imaging (MRI) equipments of high field, dedicated specifically to experimental uses, have been used to study the hydrocephalus in vivo of small rats carriers of congenital hydrocephalus. In this experiment the MRI of 1,0 T (the same used to investigate neurological diseases in humans is evaluated as an imaging method to study in vivo the size of the ventricles of hydrocephalic rats of the race Wistar.

To accomplish this study, 33 rats had become hydrocephalic through the intracisternal injection of caulin. The parameters, Ventricular Ratio, Cortical Thickness and Ventricular Area, were measured at the digital picture of the MRI slice and at the anatomical slice of the brain. At eye vision, the quality of the images were sufficient to distinguish the ventricular cavities from the brain.

The ventricular ratio was the most confident parameter to compare, resulting in a correlation ratio of 0.95. The MRI overestimated the ventricular area in an average of 36.23%. The imaging method was applied to eval-

uate the size of ventricles of hydrocephalic rats submitted to a surgical ventricular shunt.

Beforehand, in order to determine the best surgical procedure, 14 hydrocephalic rats were submitted to ventricle-subcutaneous shunts, 9 to ventricle-peritoneal shunts and 6 to ventricle-pleural shunts. The ventricular-subcutaneous shunt to the neck demonstrated to be the best surgical procedure to treat the hydrocephalus in this model, because it was technically easier, faster to perform, presented less complications and has been more secure than the others to check up the patency of the system.

In another group of 26 hydrocephalic rats, the shunts to the subcutaneous tissue of the neck were more efficient to reduce the size of the ventricles when performed in animals injected, operated upon and were sacrificed much earlier than the ones injected, operated upon and sacrificed late.

**KEY WORDS:** experimental hydrocephalus, magnetic resonance, experimental surgery.

\*Avaliação da ressonância magnética de 1,0 T como método de imagem in vivo da hidrocefalia experimental: aplicação do método na avaliação do tamanho dos ventrículos em ratos submetidos à derivação líquórica (Resumo). Tese de Doutorado, Universidade de São Paulo (Área: Cirurgia). Orientador: Hélio Rubens Machado.

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**THE VALUE OF THE THREE-DIMENSIONAL ANGIOTOMOGRAPHY IN DIAGNOSIS FROM THE INTRACRANIAL ANEURYSMS, WHEN COMPARED AT THE STANDARD METHOD ( DIGITAL SUBTRACTION ANGIOGRAPHY ): SYSTEMATIC REVIEW (ABSTRACT)\*. **DISSERTATION. SÃO PAULO, 2004.****

*GUILHERME CABRAL DE ANDRADE\*\**

To evaluate the sensitivity and specificity of tridimensional computerized tomography angiography (3DCTA) in the detection of intracranial aneurysms, correlating with the digital subtraction angiography (DSA) and to

determine the smaller size of the intracranial aneurysms diagnosed with the 3DCTA. The tridimensional computerized tomography angiography has utilized on the intracranial aneurysms diagnosis.

A comprehensive, computer-based, online search of the world literature on the 3 DTCA was performed (MEDLINE, LILACS, EMBASE, COCHRANE LIBRARY). All probable terms for 3DTCA were determined from initial experience with the literature on the topic. These included "CT angiography", "computerized tomographic angiography", "computerized tomography angiography", "computer tomography angiography", "computer tomographic angiography", "three dimensional computed angiography"; the relevant terms used were "subarachnoid hemorrhage" e "aneurysm(s)". The initial criteria for inclusion in the systematic review were study design and examination methodology, image review process and presentation of result data.

The results demonstrated that the 26 studies identified by using this search, with total of the 1.483 intracra-

nial aneurysms diagnosed through the digital subtraction angiography and 1.391 (94%) of these diagnosed at the 3DCTA and the smaller size was 2mm. The intracavernous carotid aneurysms were the majority of the false negative results.

In conclusion, the sensitivity of the 3DCTA was the 95% as 100% by 63% these studies and the specificity was the 95% as 100% by 50% these studies. The smaller size of the intracranial aneurysms diagnosed was 2 mm, with the false negative cases more frequent were the intracavernous carotid aneurysms(25%) because of the proximity with bone structures; the middle cerebral artery aneurysms (19%) because of the presence the loops and posterior communicating artery aneurysms because of the infundibular dilatation.

**KEY WORDS:** cerebral aneurysms, angiotomography.

\*O valor da angiotomografia tridimensional no diagnóstico dos aneurismas intracranianos quando comparado ao método standard (angiografia digital convencional): revisão sistemática da literatura.(Resumo). Dissertação de Mestrado, Universidade Federal de São Paulo, UNIFESP / EPM (Área: Neurocirurgia). Orientador: Fernando Menezes Braga.

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## EVALUATION OF KETOGENIC DIET EFFICACY IN PATIENTS WITH REFRACTORY EPILEPSY (ABSTRACT)\*. DISSERTATION SÃO PAULO, 2004.

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Ketogenic diet (KD) is a high fat, low carbohydrate and adequate-protein intake diet, developed in the 1920's as an attempt to control refractory epilepsy. Its mechanism of action is poorly known, but its efficacy is well defined.

This study analyzed the KD effects on a group of 54 children and adolescents with refractory epilepsy who were consecutively enrolled in the KD program of the Children's Institute of the University of São Paulo.

Efficacy (seizure control and anti-epileptic drug, AED, dose reduction), tolerability and adverse-effects were studied in the 2nd, 6th, 12th and 24th month on diet. Response to KD was considered effective (E) if seizure control was > 75%, good (G) when 50-75% and ineffective (I) when <50% and, when possible, was correlated with the epileptic syndrome and the patient age.

By the second month on diet, 57.4% of the patients had E response and 31.4% G. At the 6th-month, 63.8% of the patients had E response and 25.5% G. At the 12th-month, 71.8% had E response and 2.6% G results. At the 24th-month, 62.1% had E and 37.9% G results. There was significant reduction of AED; the best response was achieved in patients with generalized epilepsy and age-related differences were not observed. Four patients experienced adverse effects that led to interrupt the diet.

Conclusion: KD proved to be an effective clinical treatment for children with difficult-to-control seizures, often-allowing reduction or discontinuation of medication. Moreover, it is well tolerated and rarely presents adverse effects.

**KEY WORDS:** children, refractory epilepsy, ketogenic diet.

"Avaliação da eficácia da dieta cetogênica em pacientes com epilepsia de difícil controle (Resumo). Dissertação de Mestrado, Universidade de São Paulo, USP(Área: Pediatria). Orientadora: Maria Joaquina Marques-Dias.

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