

## THESES

CONTRIBUTION TO THE ANATOMICAL STUDY OF THE CAVERNOUS SINUS OF THE TUFTED CAPUCHIN - *CEBUS APELLA* (ABSTRACT)\*. **DISSERTATION. BOTUCATU, 1998.**

**ROBSON JOSÉ DE SOUSA DOMINGUES\*\***

Twenty four cavernous sinuses from tufted capuchin monkey (*Cebus apella*) were studied throughout gross anatomy, stereoscopic and microscopic serial analysis. The results could show us that the cavernous sinus in monkeys is similar to the other primates, including man. Its pattern is the same as the venous channels located between the dura mater layers. It is attached by trabeculae in the intracavernous portion of the internal carotid artery. Its lateral wall is formed by two layers of connective tissue. The deep layer is continuous with the oculomotor, troclear and ophthalmic sheath nerves. The abducent nerve runs almost all the time between the internal carotid artery and the cranial nerves placed on the lateral wall. Their trabeculae are ensheated by endothelium that divides the sinus in superior, lateral and medial venous spaces in relation to the internal carotid artery. There are communications among them in the intercavernous sinus named anterior, inferior and posterior sinus. The internal carotid artery presents a forward ascendent retiform course until the anterior segment when it bents abruptly toward the roof of the cavernous sinus. Bundles of the nerve fibers in the trabeculae are greater in number between the internal carotid artery and the abducent nerve. These trabeculae exhibit perikaryon of neurons near the lateral wall and between the abducent and ophthalmic nerves.

**KEY WORDS: dura-mater, cavernous sinus, cranial nerves, internal carotid artery, Cebus apella.**

\* *Contribuição ao estudo anatômico do seio cavernoso do macaco-prego, Cebus apella (Resumo). Dissertação de Mestrado, Instituto de Biociências da Universidade Estadual Paulista (Área: Anatomia). Orientador: Oisenyl José Tamega.*

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LUMBAR HERNIATED DISC TREATMENT WITH MICROSCOPE USE (ABSTRACT)\*. **THESIS. SÃO JOSÉ DO RIO PRETO, 1998.**

**EDUARDO CARLOS DA SILVA\*\***

A hundred patients underwent microscopic removal of unilateral lumbar herniated disc in a single level.

The results were: good in 86%, regular in 12% and bad in 2%. Hospital staying after surgery was: 77% just for one day; 12% for two days, 10% for three days and 1% for four days.

Selected patients after lumbar herniated disc microsurgery performed by a skillful surgeon may show positive results such as: short hospital staying: a day or less, minor complications, early walking and quick returning to daily activities.

**KEY WORDS: lumbar herniated disc, microscope, treatment.**

\**Tratamento de hérnia de disco lombar com microscópio (Resumo). Tese de Mestrado, Faculdade de Medicina de São José do Rio Preto (Área: Medicina Interna). Orientador: Alceu Gomes Chueire.*

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**STEREOTACTIC VENTROLATERAL THALAMOTOMY FOR PARKINSONIANS (ABSTRACT)\*. THESIS. SÃO JOSÉ DO RIO PRETO, 1997.**

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This series explored the symptomatic and functional impact of ventralis lateralis (VL) thalamotomy on 32 patients with severe, refractory tremor and rigidity due to Parkinson's disease.

All patients received VL radiofrequency thalamotomies utilizing stimulation control. The patients received follow-up for as long as 42 months (mean 17.1 mo.) after their operations. At the most recent follow-up visit 87.5% of the patients with Parkinson's disease had cessation of or moderate to marked improvement in their contralateral tremor and rigidity, with a concomitant improvement in function. The most common complications were confusion (21.8%) contralateral weakness (15.6%), and dysarthria (15.6%). These complications generally resolved during the postoperative period.

These results compare favorably with those reported in the literature and confirm that stereotactic VL thalamotomy for debilitating tremor and rigidity carries a low surgical risk and can be an effective treatment option for properly selected patients.

**KEY WORDS: stereotactic surgery, thalamotomy, Parkinson's disease, tremor.**

\* Talamotomia estereotáxica ventrolateral em parkinsonianos (Resumo). Tese de Mestrado, Faculdade de Medicina de São José do Rio Preto (Área: Medicina Interna). Orientador: Édimo Garcia de Lima.

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**MYASTHENIA GRAVIS: STUDY OF 153 PATIENTS (ABSTRACT)\*. DISSERTATION. CURITIBA, 1997.**

*FRANCISCO MARCOS BEZERRA DA CUNHA\*\**

Myasthenia gravis is a disease of the neuromuscular junction with remarkable symptoms of weakness and easy fatigability of ocular muscles, isolated or associated with skeletal muscles in a generalized form; this may increase with physical effort and it improves with rest and anticholinesterase drugs. Myasthenia gravis has three clinical forms: neonatal, congenital and acquired. The diagnosis of myasthenia gravis is based upon the clinical picture, pharmacological tests, electrophysiological studies and dosage of antibodies against receptors of acetylcholine (AChR).

Our study aimed at analyzing 153 myasthenic patients as to the specific and general clinical aspects of the disease in order to identify the best methods of complementary investigation usually used, and to compare with the different conservative and surgical therapeutical procedures in correlation with the evolution of the patients.

We have analyzed, retrospectively, 153 files of myasthenic patients diagnosed from the clinical, pharmacological and electrophysiological point of view and followed up in the Service of Neuromuscular Disease of the Discipline of Neurology of the Universidade Federal do Paraná in the period of February 1973 to March 1995.

In the sample, myasthenia gravis was predominant in women (68.0%), and had a mean age of 29.5 years. The autoimmune form was the most frequent, with generalized impairment already present in the first consultation. However, the involvement of ocular muscles with ptosis and diplopia were the most frequent signs and symptoms.

The sphingomanometry and pharmacological tests were useful in the diagnosis of generalized forms of the disease. However, the test of repetitive stimulation confirmed the diagnosis in the majority of the cases.

The use of prostigmine, prednisone, other immusuppressants and plasmapheresis has had clinical efficacy, mainly in patients under 50 years old. There was no significant statistical difference between

patients submitted to surgical and conservative treatment as to remission and improvement. In the thymectomized group, there was a higher frequency in the compensated control types, suggesting a greater stability of the disease with this procedure. However, our findings suggest that the different therapies have a positive influence on the clinical evolution of the disease, that follows its autolimited course, independent on the kind of therapy.

**KEY WORDS: myasthenia gravis, treatment, thymectomy.**

\*Miastenia grave: estudo de 153 casos. (Resumo). Dissertação de Mestrado, Universidade Federal do Paraná. (Área: Neurologia). Orientador: Lineu César Werneck; co-orientadora: Rosana Hermínia Scola.

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THIRD VENTRICULOSTOMY: HISTORY, ANATOMICAL BASES, TECHNIQUES AND EXPERIENCE OF THE AUTHOR (ABSTRACT)\*. **THESIS. SÃO PAULO, 1997.**

*SAMUEL CAPUTO DE CASTRO\*\**

The knowledge about hydrocephalus and its management has been slow and gradual since the early times of Medicine until the present state of the art. Robert Whytt (1714-1766) provided the first description of the clinical picture of the disease and the consequences of the increased intracranial pressure. Morgani (1682-1771) provided a detailed description of pathology. The most important contribution in our century had been afforded by Walter Dandy (1886-1946) as such: 1) he defined hydrocephalus as a ventriculomegaly where there is a gradient of pressure between the ventricular cerebral spinal fluid (CSF) and the brain parenchyma; 2) he classified it as obstructive and communicant according the place where occurred the mechanical obstruction; 3) he established the basis for its control stating that to treat obstructive hydrocephalus one must to perform a thirdventriculostomy and to treat the communicant one to perform an extirpation of the choroid plexus.

According to these principles several surgical techniques of ventriculostomy were developed since the decade of 1920. Some had made landmark. The first of them had been the own technique of Dandy (1922) by which, throughout a subfrontal craniotomy and sacrifice of a sound optic nerve, the floor of the third ventricle is opened toward the base cistern. The one of Mixer (1923) throughout a percutaneous coronal approach under endoscopic vision, the floor of the third ventricle is perforated, communicating it with the interpeduncular cistern. McNickle (1947) and Forjaz (1968) had done the procedure but under radiological control.

From 1947 on, with the introduction of the silastic in Medicine, the external shunts of the CSF toward the abdominal cavity or the heart took the place. Only after the decade of sixties, allowed by the invention of Harold Hopkins of the hod lens and the optic fibers (easing the manufacture of delicate instruments) the modern endoscopic thirdventriculostomy became the standard procedure for the treatment of the obstructive forms of hydrocephalus.

Two anatomic giving of the nature make possible and minimal invasive the endoscopic percutaneous approach to the base cisterns: 1) from the point of Kocher a probe (or a ventriculoscope) transverse the silent frontal cortical mantle, falls into the ventricle cavity and throughout a straight line pass the foramen of Monro to the third ventricle; 2) the floor of the third ventricle, in hydrocephalus, is a thin membrane which separate the intracerebral cavities from the cisterns, becoming easy to make a bypass to CSF.

To indicate it we base on clinical picture of the patient and on exams which show the ventriculomegaly as ultrasonography, axial computed tomography and nuclear magnetic resonance of the brain. The transcranial Doppler has been demonstrated to be a valid method to investigate about the grade of the intracranial hypertension which come together the hydrocephalus, as much pre as post operative. The resolution of the clinical symptoms of the patient, the return to normal values on the several dates of the transcranial Doppler tests and reduction of the size of ventriculomegaly are the parameters on those we base to evaluate the success. There is no reliable test presently to confirm the patence of the opening created by the ventriculostomy. Therefore, the cine bidimensional magnetic resonance recently accessible can soon fulfill this gap.

We presented our experience in 23 patients which undergone this procedure. At the lactant group we had success to control the symptoms of hydrocephalus in 3 out of the 8 carriers of aqueduct stenosis and in 2 out of 4 hydrocephalus associated to myelomeningocele. At children and adults we had success in 5 out of 6, being 4 carriers of aqueduct stenosis, one of a pineal tumor and one of a cyst of the quadrigeminal plate. We had one death: an adult patient at the beginning of the series. On the 5 carriers of hydrocephalus following ventriculitis, meningitis or brain hemorrhage we do not had any success.

At literature, this method presents morbidity rate bellow 5% and mortality rate less than 1%. It applied to lactants offer 40% of cure and to adults 80%, allowing them to be free of the chronic dependence of the shunts. To these results none technique developed until now equals for the treatment of the obstructive hydrocephalus.

**KEY WORDS: non-communicating hydrocephalus, treatment, third ventriculostomy.**

\*Terceiro ventriculostomia: histórico, bases anatômicas, técnicas e experiência do autor (Resumo). Tese de Mestrado, Faculdade de Medicina da Universidade Federal de São Paulo (Área: Neurocirurgia). Orientador: Sérgio Cavalheiro. Estudo realizado com bolsa da CAPES.

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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.