

Roberto Melaragno's scientific contributions to Brazilian Neurology

As contribuições científicas de Roberto Melaragno à Neurologia Brasileira

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ABSTRACT

Roberto Melaragno Filho, an associate professor of neurology at the School of Medicine of *Universidade de São Paulo* and head of the neurology service at *Hospital do Servidor Público Estadual Francisco Morato Oliveira* (HSPE-FMO), had a significant scientific career. He is recognized as a reference in the 20th century Brazilian neurology in addition to having a notable international career.

Keywords: Neurology; History; Stroke; Multiple Sclerosis; Parkinsonian Disorders.

RESUMO

Roberto Melaragno Filho, professor livre-docente em neurologia pela Faculdade de Medicina da Universidade de São Paulo, e chefe do serviço de neurologia do Hospital do Servidor Público Estadual Francisco Morato de Oliveira (HSPE-FMO), teve uma carreira científica de grande relevo, sendo reconhecido nacionalmente como uma das referências em neurologia no século XX, além de ter tido uma notável carreira internacional.

Palavras-chave: Neurologia; História; Acidente Vascular Cerebral; Esclerose Múltipla; Transtornos Parkinsonianos.

INTRODUCTION

Brazilian neurology, particularly in São Paulo, was strongly influenced by French neurology^{1,2}. The first chair of neurology at the School of Medicine of *Universidade de São Paulo* (USP) was filled by professor Enjolras Vampyrè in 1935; after his premature death in 1938, his assistant professor Aderbal Tolosa was chosen to replace him through an open selection process^{2,3,4,5}. In 1945, the neurology clinic at the School of Medicine of USP was transferred to *Hospital das Clínicas* under the leadership of Tolosa and his assistants Oswaldo Lange and Oswaldo Freitas Julião, along with several volunteer assistants, including Roberto Melaragno Filho^{3,4,5,6,7,8}. Melaragno had exceptional didactic capacity and relevant scientific production, and came to represent Brazilian neurology to the rest of the world⁷. This historical review presents Roberto Melaragno's main contributions to Brazilian neurology.







ROBERTO MELARAGNO FILHO — BIOGRAPHY

Roberto Melaragno Filho (Figure 1) was born in São Paulo in 1919 and obtained his degree in medicine from the School of Medicine of USP in 1942^{7,8}. In 1943, he began working as a volunteer assistant at the neurology clinic of USP, *Hospital das Clínicas*, under the supervision of Aderbal Tolosa^{3,4,7,8}. In 1947 and 1948, he completed his studies as an Assistant Foreigner at the School of Medicine of Paris under professor Raymond Garcin^{7,8}. Melaragno was appointed Free Lecturer at USP in 1954 and remained very active in the neurology service through didactic and scientific work until leaving in 1965 to take over as the head of the neurology service at *Hospital do Servidor Público Estadual Francisco Morato de Oliveira* (HSPE-FMO)^{3,4,6,7,8}. There, he was responsible for training many neurologists until his retirement in 1989^{7,8}. Melaragno was a founding member of the Brazilian Academy of Neurology; he was a frequent participant in congresses

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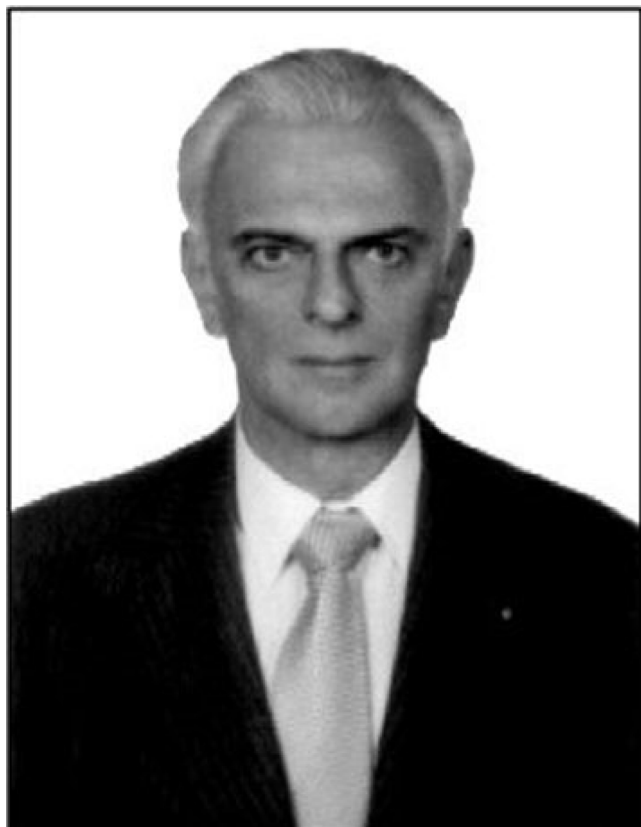
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and sponsored the creation of the Henrique Sam Midlin award. In 1998, on the eve of his seventy-ninth birthday, he died in the city of São Paulo^{7,8}.

Professor Melaragno together with Professor Luiz Augusto Franco de Andrade, from *Escola Paulista de Medicina (Universidade Federal de São Paulo)* were the creators and first coordinators of the Brazilian Academy of Neurology working group on extrapyramidal diseases, today, movement disorders scientific department. On March 11th, 1985, in the city of São Paulo/SP, the group was created with the presence of several neurologists and with the participation of an international guest, Professor Urpo Rinne from Finland. In the following year, Professor Melaragno and Professor Franco de Andrade organized an international symposium on movement disorders, that took place in the cities of Rio de Janeiro and São Paulo, with the participation of Professor C.D. Marsden (from the United Kingdom) and Professor Yves Agid (from France). Today the *Associação Paulista de Medicina* awards Professor Roberto Melaragno Filho.

RELEVANT SCIENTIFIC CONTRIBUTIONS TO NEUROLOGY

Melaragno published several scientific articles in Brazil, mainly in *Arquivos de Neuro-Psiquiatria* (the official journal



Source: Paiva Melo⁷.

Figure 1. Roberto Melaragno Filho (1919–1998).

of the Brazilian Academy of Neurology), and abroad, particularly in France^{9,10,11,12,13,14,15}. Initially, he published on general neurology, then made more frequent contributions in the areas of cerebrovascular diseases and, later, neuroimmunology and multiple sclerosis, including books on these topics^{7,8,15}. Notable articles addressed cerebrovascular diseases, studies on the pharmacology of cerebral circulation, thrombosis of the internal carotid artery, intracranial aneurysms, and clinical hemorheology in the study of cerebral blood flow^{12,14}. In neuroimmunology he published articles on cerebrospinal fluid immunoglobulins G in nervous system diseases¹⁵, and on the topic of neuromuscular diseases, he addressed ocular myopathy, periodic paralysis, and Charcot-Marie disease¹⁰. In the area of movement disorders, he published articles on cerebellar ataxias, with one of the first descriptions of Pierre-Marie heredo-ataxia or spinocerebellar degeneration (today known as spinocerebellar ataxia or SCAS) in Brazil⁹ (Figure 2). He also published case reports about myoclonic cerebellar dyssynergy, Hallervorden-Spatz syndrome, Parkinsonian disorders and dementia, and Parkinson disease, and was a pioneer in the use of levodopa in Brazil^{11,13,16}. He was also the author of several case reports in general neurology, particularly in the

CONSIDERAÇÕES SOBRE AS HEREDO-DEGENERAÇÕES ESPINHO-CEREBELARES

A PROPOSITO DE DOIS CASOS DE HEREDO-ATAXIA CEREBELAR DE PIERRE MARIE EM DUAS IRMÃS *

HENRIQUE SAM MINDLIN **

E
ROBERTO MELARAGNO FILHO ***

Entre as afecções hereditárias e familiares do sistema nervoso destacam-se, por sua maior frequência e importância, a moléstia de Friedreich (1861), a heredo-ataxia cerebelar de Pierre Marie (1893) e a paraplegia espástica de Strümpell (1893).

O problema dessas afecções familiares apresenta certos aspectos interessantes que, ainda hoje, constituem campo aberto à discussão entre os neuropatologistas. Antes de relatar os casos clínicos por nós observados, estudaremos as questões ligadas à etiopatogenia e ao conceito, unicista ou pluralista, das heredo-degenerações espinho-cerebelares. Dispensamos a descrição dos quadros sintomatológicos dessas moléstias, pois que os mesmos são sobejamente conhecidos.

Constituem essas afecções diferentes entidades nosológicas ou representam apenas formas diversas de um mesmo grupo de moléstias hereditárias do sistema nervoso e dependentes tão somente da variabilidade na localização das lesões? Divergências existem ainda a esse respeito, dividindo-se os autores entre os que aceitam o conceito unicista e os que continuam a considerar cada uma das afecções indicadas como individualidade nosológica autônoma.

Ayala (1) e Strümpell (2) em seus tratados, seguem a opinião de Bing o qual considera a heredo-ataxia cerebelar como uma sub-espécie frequente e relativamente característica da moléstia de Friedreich. Do mesmo modo, Walshe (3) considera em conjunto as heredo-ataxias,

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(3) Walshe, F. M. R. — *Diseases of the Nervous System*. 1940.

Source: reproduced from reference 9.

Figure 2. Sam Mindlin & Melaragno's paper about spinocerebellar ataxias published in 1943.

Brazilian journal *Arquivos de Neuro-Psiquiatria*^{7,8}. One of his most significant studies discussed gait disorders in patients with parkinsonian disorders, presenting different subtypes of freezing¹⁷.

INTERNSHIP IN PARIS WITH RAYMOND GARCIN

During the two years he interned at the School of Medicine of Paris under Raymond Garcin, Melaragno published important studies that allowed him to obtain the title of Foreign Assistant^{7,8}. He studied motor phenomena that can occur in movement disorders syndromes, particularly parkinsonian disorders, assessing the “kinetic restraint” (“*enrayage cinétique*”) of the gait, characterized by the presence of a gait disorder, or the occurrence of quick steps in the same place during movement (“*signe de piétinement*,” “trampling sign”). Another gait disorder he studied was defined

as “*bégaiement de la mise en route*,” currently considered a gait block or freezing, which tends to occur in parkinsonian patients. Another topic discussed in the same article was perseverance or tonic innervation, in which patients exhibit a sudden inhibition during voluntary movements, with their limbs frozen for seconds in bizarre positions. In Melaragno’s time, this phenomenon was considered an extreme manifestation of bradykinesia and was related to motor blocks or freezing, as it is currently defined¹⁷.

Professor Roberto Melaragno Filho is recognized as one of Brazil’s most important professors of neurology and made major contributions to solidify neurology as a specialty in the state of São Paulo and across the country^{7,8}. His scientific publications in Brazil and abroad were relevant in several different areas of neurology, combined with his presence in domestic and international professional congresses, led the late Dr. Antonio Spina-França to describe him as an world ambassador for Brazilian neurology⁷.

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