

WHY MOVEMENT DISORDERS SHOULD BE A FORMALLY ACKNOWLEDGED SUBSPECIALTY OF NEUROLOGY EDITORIAL

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DISCLOSURES

DD received honoraria for services provided to Allergan, Ipsen, Merz, Lanzhou Institute of Biological Products, Medy-Tox, Revance, Desitin, Syntaxin, Abbvie, Medtronic, St Jude, Boston Scientific, Almirall, Bayer, Sun, Teva, UCB, IAB-Interdisciplinary Working Group for Movement Disorders. He is shareholder of Allergan and holds patents on botulinum toxin and botulinum toxin therapy.

IM:

The development of medicine: Since the last century medicine has expanded tremendously in almost every aspect: in its scientific basis, in its diagnostic opportunities, in its therapeutic armamentarium and in its financial basis. The large field of medicine grew even bigger. More and more medical specialties developed and traditional specialties developed sub-specialties: internal medicine, over centuries together with surgery, the only two fields of medicine, developed infectiology, cardiology, gastroenterology, immunology, endocrinology, nephrology, pulmonology, haematology, infect ology and so on. And surgery did the same.

The development of neurology: Parallel to the development of medicine, neurology expanded as well. In the 19th century neurology started to exist as an independent specialty. In some countries, such as Germany, neurology was seen as part of neuroscience - with psychiatry being an intellectual twin both dealing with the same coin just from different perspectives. Up to now, this special relationship still continues. It may actually be growing with the development of biological psychiatry. Psychotherapeutic and psychoanalytical psychiatry starting in the early 20th century was often seen as a part of the humanities. In the Anglo-American world, neurology developed out of internal medicine. Here, the links to psychiatry were loose. Wherever neurology may have come from, it soon began to diversify. Core activities within neurology are neurovascular diseases (stroke), neuroimmunology, epileptology, neuroinfectology, neurological intensive care, peripheral neurology (clinical neurophysiology, neuromuscular disorders), neurorehabilitation, neurooncology, neuropsychology (behavioural or cognitive neurology), pain disorders, neurogenetics, autonomic disorders and movement disorders. Closely associated with neurology but independent fields are neurosurgery, neuroradiology and neuropathology.

The big neurological entities are neuroimmunology, neurovascular disorders, epileptology, neuromuscular disorders and

movement disorders.

Was it wise for neurology to leave pain to anaesthesiology (patients want analgesia, not anaesthesia), neurorehabilitation to cheap rehabilitation places and neuropsychology with dementia to psychiatry and geriatrics? Was it wise to take on board stroke from internal medicine to such an extent that many university departments are now mere stroke clinics? Time will tell...

The development of movement disorders: Movement disorders started with Parkinson's disease. It was not just only a very common problem, since the 1960 it was also one of the great success stories in neurology: a pathological footprint, subsequent biochemical analysis and neuropharmacology fine-tuned with several pharmaceutical tricks. Parkinson's disease still dominates movement disorders whilst atypical Parkinsonian syndromes have more recently expanded its clinical spectrum. Tremor is the most common sign in movement disorders. However, its severity varies considerably, so that the actual burden of disease generated may be somewhat lower than the numbers suggest. Dystonia with its current concept formulated by C David Marsden and Stanley Fahn in the early 1980's is another huge movement disorder entity with a prevalence close to Parkinson's disease. Spasticity is also very frequent sign. It should be part of movement disorders rather than being left alone in neurorehabilitation or falling in oblivion altogether. Huntington's disease and Wilson's disease are rare movement disorders, whilst hemifacial spasm is frequent. Extremely challenging are psychogenic movement disorders, both diagnostically and therapeutically. On top of this there are a large number of rare or very rare movement disorders.

When movement disorders started with Parkinson's disease empiric pharmacological therapy was the only available treatment option. With the advent of levodopa replacement therapy therapeutic efficacy raised dramatically. Continuous dopaminergic stimulation through subcutaneous apomorphine pumps or through duodenal levodopa gel pumps improved the outcome in advanced disease stages considerably. In dystonia classical drug treatment is problematic because of limited efficacy and high adverse effect rates. A dramatic change in movement disorders therapy came with the advent of botulinum toxin therapy, a long-lasting local muscle relaxant for treatment of dystonia and subsequently for a large number of other conditions related to muscle hyperactivity, exocrine gland hyperactivity and - most recently - even chronic migraine. Soon after botulinum toxin therapy was invented, deep brain stimulation was introduced for

treatment of Parkinson's disease. It later also proved efficient for tremor and for dystonia.

WHAT NEXT?

Movement disorders are now probably representing 20% of neurology's patient base with rapid growth as most movement disorders are age-related. Movement disorders are also representing an equally important share in neurology's scientific base. There is a growing body of scientific evidence being published in large international congresses organised by The International Parkinson and Movement Disorders Society (MDS) and The International Association of Parkinsonism and Related Disorders (IAPRD). Likewise, there are two international journals, Movement Disorders (together with Movement Disorders Clinical Practise) and Parkinsonism and Related Disorders (together with Parkinsonism and Related Disorders Clinical Practise). As therapies grow more and more complex and as coordinating more and more allied health care specialists becomes necessary movement disorders therapies become increasingly complex and challenging. There is also a growing number of national societies for movement disorders in many European countries. In the United States neurological postgraduate training may include

designated fellowships in movement disorders as subspecialisations.

Movement disorders should become an acknowledged subspecialty of neurology. Eventually, a formal educational curriculum should provide the basis for a specialisation in movement disorders. National societies may be helpful to institutionalise movement disorders. The growing interest of the Bulgarian Society of Neurology as strongly supported by Academic Ivan Milanov will be a good starting point for the further development of movement disorders in Bulgaria.

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ЗАБОЛЯВАНИЯ, СВЪРЗАНИ С АНТИ-МИЕЛИНОВИ ОЛИГОДЕНДРОЦИТНИ ГЛИКОПРОТЕИНОВИ АНТИТЕЛА (MOG-ANTIBODY DISEASES)

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MYELIN OLIGODENDROCYTE GLYCOPROTEIN ANTIBODY (MOG-IGG)-ASSOCIATED DISORDERS

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ABSTRACT

The range of central nervous system (CNS) inflammatory diseases has recently broadened to include a new condition associated with pathogenic serum antibodies against myelin oligodendrocyte glycoprotein (MOG).

There now seems to be enough evidence to delineate anti-MOG positive CNS demyelination as a disease entity separate from multiple sclerosis (MS) and AQP4+ neuromyelitis optica spectrum disorders (NMOSD). Although some clinical and radiologic features clearly resemble NMO, patients positive for anti-MOG display additional characteristics and are distinctly different. This distinction is supported by pathological findings

showing an oligodendrocytopathy in MOG Ab+ and astrocytopathy in AQP4 Ab+ patients.

MOG-antibody-associated disease phenotypes are varied and range from classical neuromyelitis optica to acute demyelinating encephalomyelitis and cortical encephalitis. The onset phenotype varies with age but with not ethnicity or sex. MOG-antibody disease can be either monophasic or relapsing.

There are suggested diagnostic criteria, requiring further validation for confirming final use in clinical practice.

As there have been no controlled treatment trials in MOG antibody positive diseases, therapy regimens are based on the suspected individual prognosis and clinical experiences.

KEY WORDS: anti-MOG, demyelination, treatment

РЕЗЮМЕ

В групата на възпалителните демиелинизиращи заболявания на централната нервна система (ЦНС) неотдавна беше включено ново състояние, свързано с патогенни антитела в серума срещу миелин олигодендроцитния гликопротеин (MOG).