Autoimmune channelopathies, diagnostic and therapeutic challenges in neurology

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The better understanding of cellular biology opened a new era in neurosciences. Many diseases of unknown etiology and/or pathophysiology revealed their secrets with the discovery of the roles of membrane channels in their genesis, like genetic epilepsies. More and more Diseases of central peripheral nervous system and muscle are recognized as channelopathies. Development of antibodies to ion membrane channels subunits or proteins can lead to dysfunction in these organs and give clue for diagnosis especially when these dysfunctions are associated with normal or nearly normal imaging or histology. Myasthenia was one of the first described autoimmune channelopathies. But new entities are emerging such as anti-NMDA receptor encephalopathy, and old entities such as the "Chorée de Morvan" are revisited.

In parallel development of new immune modulator and immune suppressor drugs such as monoclonal antibodies widened the spectrum of treatment choices, raising the need for future consensus and recommendations.

A historical review will be followed by pertinent details of recognized and less well recognized entities. Then we will discuss the pitfalls in clinical and biological diagnosis process, and finally we will review the state of the art of treatment options, for the most known diseases.

Biography

Kamal El Kallab graduated as M.D. from Université Saint Joseph, where he was later on appointed as director of Speech Therapy Institute. He had the French board of neurology in 1979 and became Associate professor in Université Saint Esprit Kaslik (USEK), where he was appointed as dean of medical school (2008-2010) and Université Libanaise (UL) in Lebanon. He practices in Lebanon in the university hospital as Chief of Department of Neurology. He is a clinical investigator for new drugs, mainly for multiple sclerosis. He was the President of the Lebanese Neurological Society (2002-2004). He is a MBA graduate (Sorbonne-Dauphine-USJ program). He is Member of the Lebanese national ethics committee, an of a working group of WHO on organ donation. He is advisory for state agencies and member of many NGOs.

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