

Multiple Sclerosis disease Phyto-therapy and Physiotherapy

Jyoti Rawat*

*Department of Biotechnology, Shree Ramswaroop Memorial University, Uttar Pradesh, India

Description

Multiple sclerosis (MS) is a chronic inflammatory autoimmune disease affecting the central nervous system with no effects on the peripheral nervous system. It belongs to the group of neurological demyelinating diseases. MS is characterized by a triad of an inflammatory reaction, the process of demyelination, and gliosis (scarring). The latter gives the name of the disease (from the Greek word "skleros" meaning "scars").

Essentially, "multiple sclerosis" implies the nearness of "various scars" on the grounds that the foci, which could be dispersed all through the entire CNS, are basically denser than the encompassing sensory tissue.

MS was probably first described by Count Jan Van Bieren of Holland in 1395. He wrote a paper about a Dutch woman, named Lidwina of Sheidam, and her "unknown" disease. At the age of 15, Lidwina started suffering from terrible face pain. Until her death in 1433, she developed weakness in leg with a progressive inability to walk, feel her legs & cannot see with one eyes. All these symptoms hindered her ability to practice her favorite sport-ice skating. However, as Count Van Bieren mentioned, she continued helping others her whole life. Because of her merits, Lidwina was canonized and declared a patron saint of all ice-skaters.

MS is a widely spread disorder and the most frequently seen a demyelinating disease of the nervous system. Approximately 2.5 million people worldwide suffer from MS-about 400,000 people in the US and according to the European Multiple Sclerosis

Platform-about 700,000 people in Europe (70% of them being diagnosed in prime working years). The distribution of prevalence of MS shows areas with high prevalence (>30/100,000), like North Europe and North America, with medium prevalence (5-30/100,000), like South Europe, South

USA and Central and South America (10-20/100,000), and with low prevalence (<5/100,000), like Asia and South America. It is interesting to mention that its incidence is greater in big

Industrial and urban areas than in rural areas. Multiple Sclerosis affects individuals between 20 and 40 years of age. In Europe, the highest prevalence rates are observed

Between 35-64 years of age. In western societies, MS is the second most common cause of neurologic disability in early to middle adulthood, being dominated only by traumas. There are rare reports on the occurrence of MS in children (as early as 2 years of age) and in octogenarians. Like many other autoimmune disorders, MS is more common in women than in men.

MS affects only the central nervous system, in particular, the brain and the spinal cord, i.e. the myelin sheath of the axons. The morphological basis of MS is the formation of the so-called scars of multiple sclerosis which are foci of myelin damage (demyelination) of the white matter of the brain and the spinal cord. It is believed that T-cells (CD8+ and CD4+) play a central role in the process of demyelination. Antibodies directed against myelin, such as myelin oligodendrocyte glycoprotein (MOG), appear to be an important concomitant pathogenetic factor, together with the pathological T-cell-mediated immune response in MS, and an abnormal humoral immune response.

Microscope slides show that the acute MS lesions are surrounded by inflammatory mononuclear cells (predominantly, T-cells and macrophages) which passed the blood-brain barrier near the site of inflammation (without destroying the wall of the blood vessels). Very often, myelin-specific autoantibodies are also found (for instance, MOG), which promote demyelination and act like stimuli for macrophages and microglial cells that scavenge myelin debris. In the process of evolution of MS

Plaques, astrocytes start proliferating (gliosis) and the surviving oligodendrocytes (or those differentiating from precursor cells) partially remyelinate the naked axons which survive the MS attacks and produce the so-called shadow plaques.

The cause of MS is still unknown. Currently, the most widely the accepted hypothesis is that MS could occur as a result of the interaction of a number of unfavorable external and internal factors. Unfavorable factors are viruses (such as human herpes virus, HHV-6A), and bacterial infections, toxic substances and radiation (including solar radiation), certain eating habits (excessive meat consumption), geo-ecological place of residence (with a very strong influence on children's organism), traumas, frequent stressful situations, etc. Genetic predisposition to MS is probably connected to the combination, in certain individuals, of several genes determining first and foremost disorders in organism's self-regulation. There are proper grounds to claim that MS occurs when there is a shortage of organic gold in human organisms (Kaniskov).

How to cite this article: Rawat J. "Multiple Sclerosis disease Phyto-therapy and Physiotherapy". J Pediatr Neurol Med 5 (2020) doi: 10.37421/jpnm.2020.5/138

*Corresponding author: Jyoti Rawat, Department of Biotechnology, Shree Ramswaroop Memorial University, Uttar Pradesh, India, Tel: +91 8299336994; E-mail: jyotisweet156@gmail.com

Received date: July 25, 2020; Accepted date: July 27, 2020; Published date: July 30, 2020

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