

## **BOOK REVIEW**

### **Multiple Sclerosis in Children and Adolescents**

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Multiple sclerosis (MS) is a chronic, autoimmune, inflammatory, demyelinating disease that affects the brain, spinal cord and optic nerves. Although, the chronicity of disease course is generally characterized by a relapsing-remitting course of neurological symptoms and signs, the clinical course can be variable from benign with none to minimal impact on function to disabling impact.

Prevalence studies estimate that multiple sclerosis affects approximately 350,000 individuals in the United States and 2.5 million individuals worldwide. Although most cases have been reported in adults, multiple sclerosis is seen in children and adolescents. Population studied estimate that 2-5% of patients with multiple sclerosis first experience their symptoms before age 18 yr. In the United States, 8,000 – 10,000 children and adolescents have multiple sclerosis. A male predominance has been reported when the disease is recognized before age 6; by age 12 years the prevalence is higher in females with a ratio of 2:1.

Diagnosis of multiple sclerosis in pediatric age group is often delayed because it is largely considered to be an adult disease and also many symptoms and signs are also seen in other neurological diseases that are more prevalent in the pediatric age group. Although, variability in the clinical course of the disease has been well recognized, most children diagnosed with multiple sclerosis are considered to have a relapsing-remitting multiple sclerosis. Seizures, altered sensorium and lethargy are somewhat unique to children with multiple sclerosis; not commonly seen in adults and relapses are also more frequent in the pediatric age group. The disease course is generally slower in children and adolescent compared to adults; however, significant functional impairments occur at younger age.

Several aspects are unique and much more critical to recognize and manage in children and adolescent with multiple sclerosis. Its impact on the patient and his or her care givers and family go far beyond medical management of the disease itself. The impact on interpersonal relations, psychosocial growth and development, and academic performance can be significant for the patient and the family. Significant progress has been made in recent years in the medical management of multiple sclerosis; however, effective approved treatments for the pediatric age group still lag far behind that in adult medicine. Multiple sclerosis in children and adolescent is best managed by a multidisciplinary team.

This 202 pages long book describes all aspects of multiple sclerosis in children and adolescents. The style of presentation is simple, succinct and clear. In addition to a basic description of definition, pathogenesis, clinical features, diagnostic evaluation and pharmacological treatment, this book includes other less well talked about yet very critical aspects of management of the patient and his or her family. Detailed discussion of psychosocial aspects, impact on family and friends, alternative therapies including mindfulness and also the financial burden on the family are especially noteworthy. The authorship represents an array of expertise in multiple disciplines – an important aspect of providing total holistic

care to the patient. Different disciplines represented by authors include child neurology, adolescent medicine, pediatrics, nursing, medical social work, and nutrition.

As the editors of the book note, multiple sclerosis is often an afterthought for primary care providers and even some neurologists when they conduct their initial evaluations of young people with what seems to be a neuromuscular disease. It is usually low on the differential diagnosis list, which unfortunately delays proper diagnosis and early treatment. This book will serve primary care providers as a handy reference to help prevent late diagnosis.

This book must be an *essential reading* for all health care providers involved in caring for children and adolescents with multiple sclerosis and their families.

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