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Introduction

The epidemiology of progressive multifocal leukoencephalopathy (PML) has evolved in recent years. Until the availability of natalizumab, PML was seen primarily by physicians who treated patients with human immunodeficiency virus (HIV) infection. This situation changed in 2005 when PML was first associated with natalizumab therapy in patients with multiple sclerosis (MS). This discovery focused attention and investigative resources on the relationship between PML and natalizumab, and subsequently on other biologically based therapies. In the years since, we have learned about the pathogenesis of PML and developed concepts of risk mitigation.

Increasingly selective, potent, and innovative biologically based immune-based therapeutics have led to enhanced therapeutic options, but also to more surprises, with PML being observed in unexpected patient populations. The MS community and clinicians who routinely use biologic therapies are alert to this disease and its implications for patients. PML remains rare enough, however, that community-based clinicians may be less attuned to the impact and risks of these therapies.

This *Cleveland Clinic Journal of Medicine* supplement addresses the issues of awareness, recognition, and management of PML for clinicians whose patients may be at risk, including those in the fields of infectious disease, neurology, oncology, and rheumatology. The supplement provides an overview of the pathogenesis and clinical picture of PML, its evolving epidemiology, and the current approaches to its management.

The articles and their accompanying discussions are based on a roundtable held at Cleveland Clinic on January 31, 2011. The roundtable's expert faculty contributed insights from several different perspectives, including laboratory research on JC virus–induced demyelinization in PML; front-line experience starting in the early 1980s when PML was understood to be an HIV-related disease and continuing to its current status as a potential complication of biologic therapy; and management of a large pharmaceutical safety program that monitors and facilitates reporting of potential fatal drug side effects.

Readers of these articles will acquire understanding of the history and clinical picture of PML, appreciation of the influence of biologic therapies in several specialties, and enhanced awareness of when to consider PML and what actions to take when the diagnosis is a possibility.

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