



## Editorial

Neurological practice continues to evolve at the intersection of expanding diagnostic capabilities and a growing awareness of diverse disease mechanisms that may compromise the nervous system. The contributions presented in this issue of *Neurologia Croatica* highlight this dynamic landscape through four thematically distinct yet conceptually connected case-based investigations. Together, they underscore the heterogeneity of neurological disorders and the importance of refined diagnostic approaches capable of capturing early or atypical manifestations.

The first paper examines the diagnostic challenge of acute sensory polyradiculoneuropathy, emphasizing the limitations of conventional electrophysiological techniques in the early stages of immune-mediated root pathology. In the presented case, standard electromyoneurography failed to confirm the clinical suspicion during the acute phase, whereas targeted assessment of lumbosacral dorsal roots through transcutaneous electrical stimulation identified distinct abnormalities. The subsequent detection of anti-GD1a antibodies and eventual evolution into chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) further supports the immune basis of the condition. This work underscores the relevance of advanced reflex-based electrophysiological methods for the timely identification of selective sensory root involvement—an approach that may significantly influence early therapeutic decisions.

A second contribution expands the clinical spectrum of SMART (Stroke-like Migraine Attacks after Radiation Therapy) syndrome, a rare delayed complication of cranial irradiation. The authors describe an 18-year-old patient with prior treatment for glioblastoma who developed migraine-like symptoms, hemiparesis, and seizures. Notably, MRI revealed not only the characteristic unilateral cortical enhancement but also subcortical grey matter involvement, a feature not traditionally associated with SMART syndrome. The presence of cerebrospinal fluid leukocytosis further challenges existing diagnostic assumptions, illustrating that inflammatory CSF profiles do not preclude this diagnosis. The possible role of alcohol consumption as a precipitating factor broadens the discussion about triggers and pathophysiological mechanisms. This case highlights the need for ongoing refinement of diagnostic criteria and improved recognition of atypical radiological and clinical patterns in post-radiation neurological syndromes.

The third article provides novel insights into diabetic striatopathy (DS) from a cognitive-behavioral perspective. Traditionally characterized by hyperkinetic movement disorders, DS has rarely been investigated for its impact on cognition. Through systematic neuropsychological assessment of five patients, the authors demonstrate that DS may involve variable deficits in attention, executive function, memory, and language, alongside behavioral symptoms such as apathy, depression, and obsessive tendencies. Importantly, visuospatial functions remained preserved, suggesting selective vulnerability of specific corticostriatal circuits. By synthesizing their findings with existing literature, the authors propose that the cognitive-behavioral profile of DS—typically milder than in other striatal disorders—reflects the acute and potentially reversible nature of the underlying metabolic insult. This work expands the clinical understanding of DS beyond its classical motor

manifestations and highlights the importance of comprehensive neuropsychological evaluation in metabolic movement disorders.

The final contribution describes post-infectious small fiber neuropathy (SFN) following laboratory-confirmed influenza B infection. In the reported patient, the close temporal relationship between infection and symptom onset, combined with preserved large fiber function, strongly suggests an immune-mediated mechanism. The case reinforces the need for clinical vigilance in identifying post-viral neuropathic complications, especially given the chronicity of symptoms and impact on quality of life despite symptomatic pharmacologic therapy. As viral infections remain a common trigger of immune-mediated neurological disorders, this report contributes to the expanding recognition of SFN as a significant and often prolonged post-infectious entity requiring multidisciplinary management.

Across these four papers, several unifying themes emerge. First, the importance of early and targeted diagnostic strategies is evident—from advanced electrophysiological techniques in radiculopathies to refined neuroimaging interpretation in SMART syndrome. Second, the cases highlight the complex interplay of immune-mediated, metabolic, and post-therapeutic mechanisms, illustrating how diverse etiologies can produce overlapping or evolving neurological phenotypes. Finally, the studies reaffirm the value of detailed clinical observation, comprehensive assessment, and interdisciplinary collaboration in characterizing rare or under-recognized neurological conditions.

We hope that the contributions in this issue will stimulate further discussion and research into the diagnostic and pathophysiological nuances of these disorders, ultimately enhancing patient care through earlier recognition and more targeted intervention strategies.

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