



# Highlights from this issue

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The division of the nervous system into central and peripheral is not just anatomical: neurologists will choose radically different approaches when investigating disorders in these systems. For the central nervous system (CNS) imaging is king, but for the peripheral nervous system we much more often turn to neurophysiology. The CNS is photogenic, symmetrical and readily captured in two dimensions, and in this setting the power of imaging is clear. MRI provides detailed structural information about the CNS, augmented by different sequences that can highlight specific pathological processes, for example, inflammation or ischaemia. Most neurologists have built up a practical working knowledge MRI and its range of sequences, and use this in their discussions with radiologists; Claire MacIver and colleagues further assist these discussions with a 'how to understand it' primer on MRI (page 216). Neurophysiology typically has only the supporting role in investigating CNS disorders, with particular shortcomings for inter-ictal EEG. However, EEG can become very powerful when given the more appropriate task of documenting changes during an ictal event (fish always seemed pretty limited if asked to climb trees). Technological advances have made home video EEG recording straightforward—and potentially a game-changer—facilitating patient convenience and saving inpatient resources. Amardeep Kaundal and colleagues describe their experience of its use on page 212.

In contrast, neurophysiological studies have long been key to diagnosing peripheral nervous system disorders. Imaging is certainly helpful when looking at the nerve roots: Waqar Waheed describe

enhancement in the nerve roots in Guillain-Barré syndrome (page 255). However, once the nerves are out of their foramina they are much harder to visualise, bending and twisting out of the planes of imaging. Are we missing out by not imaging the nerves? Ultrasound scanning can help by examining nerves at the site of compression, such as the carpal tunnel, and this has been used to study the structure of peripheral nerves in different types of neuropathy. Johan Tellerman and colleagues describe how to acquire and use this information (page 186), to complement neurophysiology and to help identify people with inflammatory neuropathies that respond to treatment, and who might otherwise be missed.

With regard to the diagnosis of muscle disease—which falls into neurology despite its mesodermal origin—both imaging and neurophysiology can contribute although each provides only partial answers. Emma Matthews and colleagues provide a guide to the diagnosis and management of skeletal muscle channelopathies, disorders that cause weakness or myotonia but also significant cardiac and other problems (page 196). These diverse conditions are usually diagnosed clinically and confirmed by genetic tests.

Seyed Baghbanian and colleagues (page 243) describe a case of cerebrotendinous xanthomatosis that they diagnosed clinically by recognising deposits on tendons. However, our expert referee for that paper, Marios Hadjivassiliou, noted that such cases are increasingly diagnosed through testing for a panel of genes. And so, we asked him if genetic panels will replace clinical skills (page 184)? Not quite yet it seems. This issue of *Practical*

*Neurology* also has two chances to test your clinical skills, including someone with acute dysphagia in our new 'Today's ward round' format (page 255).

At some point most neurologists will encounter patients with progressive neurological disease, particularly those with motor neurone disease, who ask about physician-assisted dying. This remains the subject of impassioned debate by the public and among physicians. In some countries the law has changed to allow some forms of physician-assisted suicide and physician-assisted euthanasia. Uma Nath has led a group of authors, each holding differing views on this subject, to review developments in those jurisdictions (page 205).

Even in patients with severe neurological disorders, investigations can change practice. Hamish Morrison and colleagues describe two patients with Huntington's disease with unrecognised spinal cord injuries and reflect why this occurred and how it could be avoided (page 231), and Ramkumar Sugumaran and colleagues report a case with complications of spinal anaesthesia (page 264). Unusual or difficult to interpret imaging findings are the focus of cases from Christopher Itoh and colleagues (page 225) and Arpan Patel and colleagues (page 235)—both involving the CNS of course.

And finally, Timothy Williams and colleagues provide a commentary from pedants' corner (page 246), which should stop anyone ever referring to that electric feeling triggered by neck flexion as anything other than Lhermitte's phenomenon. Another small victory.

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