



Highlights from this issue

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There is a notion that progress in our knowledge is made gradually with the slow accretion of information, with bricks of information being added slowly to build the edifice of knowledge. Ideas are refined and improved, additional data, whether about the pathogenesis of a disorder or the result of treatment trials, add to the whole. But this is not the only way. Sometimes new ideas arrive and knock down the edifice, something Thomas Kuhn referred to as a 'paradigm shift' in his seminal work, 'The structure of scientific revolutions'.¹ The history of science has many well-known examples, perhaps most famously those involving Copernicus, Kepler, Newton and Einstein. Once shifted, the work of building knowledge restarts, but on different foundations.

Within neurology, such a shift has occurred in the understanding of encephalitis. Encephalitis has moved from being considered the result of an infective disorder—relating to a limited number of known, and some as yet unknown, viruses—to being a disorder most commonly caused by an autoimmune process. The range of syndromes linked to specific antibodies is rapidly increasing along with improved understanding of available treatments. Sarosh Irani and colleagues (page 412) summarise the current state of knowledge, highlighting the need for early diagnosis and for prompt treatment to achieve the best outcomes.

The recognition of progressive supranuclear palsy as a distinct condition in 1964 was the relevant paradigm shift in its understanding, and this has been followed by nearly half a century of research into the condition. James Rowe and colleagues provide a lucid description of how to diagnose and manage the condition (page 376), emphasising the many practical ways we can address patients' symptoms, despite still awaiting a specific disease-modifying treatment.

The understanding of trigeminal neuralgia has evolved over the years. We have a range of drugs available (although carbamazepine remains the drug of first choice after almost 60 years) and, following the observation that the condition was frequently associated with microvascular compression, a range of surgical interventions. Manjit Matharu and colleagues (page 392) guide us through the approach to management. Astonishingly fewer than 450 patients have been involved in total the 12 randomised controlled trials of seven of the eight agents tested (for the eighth, all published studies are in Chinese), as compared with 11920 in the 45 studies of surgical and other invasive procedures. Are there any other areas of neurology where surgical studies outnumber drug trials to such a degree?

Syringomyelia was previously a rare and difficult diagnosis, made late in the course of the disease. It acquired a rather negative reputation as the 'classical' neurological condition: a neurologist would carefully map out its sensory deficit ('cape and balaclava') but ultimately the deficit was largely irreversible. MR imaging has changed all that and in doing so has changed the nature of the clinical problem. Frequently now the issue is how to manage the patient where there are clear radiological changes, of fluid within the cord or a Chiari, rather than clinical findings. Graham Flint brings his enormous experience to bear in discussing these issues and how to best help these patients—and to protect them from harm—(page 403).

Most case reports allow us to build up our knowledge and understand how to apply it (as we do in clinical practice—but the published reports also provide a considered answer). Examples in this issue include a report of patient presenting with bilateral trigeminal signs helps the

understanding of brainstem anatomy (page 431); the neurological complications of glue sniffing (page 439); an illustration of opsoclonus-myoclonus (page 437); and two challenging differential diagnoses—dural arteriovenous fistula (page 435) and amoebic encephalomyelitis (page 433). There are descriptions of Lemierre's syndrome (page 442) and the opportunity to decode a new acronym—CARASIL (page 448 to find out).

However, case reports can also sometimes, although rarely, illustrate a paradigm shift. For example, Maja Christiansen and colleagues (page 424) report a patient with a genetic autoimmune condition, cryopyrin-associated periodic syndrome, which is relapsing and responsive to immunosuppression, and a rather different way to think about a genetic disease.

Maybe *Practical Neurology's* approach might also be regarded as a paradigm shift in neurological publishing, with its focus on the practical and the clinical, while avoiding novel reports and studies? Could this imply that other neurology journals address *impractical* neurology? Well probably not; after all, the edifice of academic publishing continues to build, seemingly unconcerned.



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REFERENCE

- 1 Kuhn TS. *The structure of scientific revolutions*. Chicago: University of Chicago Press, 1962.