Mervyn Eadie

Born in Lyon, France, Théodore Herpin (1799-1865) graduated in Medicine from the Universities of Paris and Geneva in 1822. He practised in Geneva for some 30 years, and after that in Paris for the rest of his life. He is remembered for providing the original description of what is now called juvenile myoclonic epilepsy, but his other major contributions to the understanding of epilepsy have sometimes been neglected. His work was published in two books, *Du Prognostic et du traitement curatif de l'épilepsie*, which appeared in 1852, and *Des Accès incomplets d'épilepsie*, published posthumously in 1867. At a time when much continental writing on epilepsy was based on the disorder as it presented in institutionalized patients, Herpin wrote of epilepsy as he encountered it in private consulting practice.

Herpin's first book advocated the concept that epilepsy was potentially curable, particularly if it was treated as early as possible in its course. Potassium bromide was not introduced into therapeutics until after Herpin's book appeared, and the anti-epileptic agents Herpin employed, particularly zinc lactate, of whose merits he thought highly, were not efficacious enough to permit his belief to be established by modern criteria of proof. If early treatment did play a significant part in improving the prognosis of epilepsy, Herpin realized that it would be important for clinicians to know how to recognize the earliest manifestations of the disorder in their patients as soon as possible. These early manifestations were often quite minor disturbances, rather than the typical tonic-clonic seizures then regarded as diagnostic of epilepsy. Herpin's second and more important book, *Des Accès incomplets*, dealt with these minor (or incomplete, as he put it) manifestations of epilepsy. He divided the spectrum of clinical manifestations of epilepsy into a hierarchy of four categories of ascending severity:

(i) preludes  
(ii) episodes  
(iii) vertigos (vertiges)  
(iv) seizures, i.e. tonic-clonic epileptic seizures

Full consciousness was retained in the first two categories, but impaired or lost in 'vertigos'. Herpin applied the term petit mal collectively to categories (i)-(iii), which would correspond to present-day simple and complex partial epileptic seizures, together with the absences and myoclonic seizures of primary generalized epilepsy. His 'seizures' were bilateral tonic-clonic convulsive seizures only. To him, the word 'fits' embraced the full range of both incomplete and complete epileptic events.
Herpin subdivided the patterns of onset of his incomplete forms of epilepsy into the following types:

(i) peripheral motor
(ii) visceral
(iii) encephalic

His peripheral motor type comprised mainly the events later called Jacksonian motor seizures. The visceral ones included those that manifested the so-called rising epigastric aura. The encephalic type involved experiences with peripheral sensory, visual, auditory and perceptual manifestations (the perceptual changes including, for instance, what were later called *déjà vu* phenomena).

Herpin also apparently included in the encephalic type what he called 'concussions', the myoclonic jerks of juvenile myoclonic epilepsy, the Janz syndrome. Under this encephalic category, he also described a probable instance of the Lennox-Gastaut syndrome. Curiously, he did not seem to have encountered any instances of absence seizures among his patients with incomplete forms of epilepsy.

Herpin had encountered such incomplete forms of epilepsy in some half of the members of his personal series of 300 patients. He believed that all of these incomplete manifestations had a cerebral origin, at a time when others (e.g. Brown-Séquard) thought that at least those with peripheral sensory manifestations arose from local peripheral abnormalities and not from the brain. He also very clearly realized that, in a given patient, the minor manifestations of the epileptic events that occurred always began in the same way, even if their subsequent development in different attacks sometimes was not identical. Therefore Herpin argued that, in the same patient, the disturbance underlying epilepsy always began at the same place in the brain. Unfortunately, he did not go on to take this line of reasoning further and so failed to develop an explicit argument that there was localization of function in the brain. Hughlings Jackson (1835-1911), a little later but whilst still in ignorance of Herpin's work, noted the same phenomena and interpreted them in the same way as Herpin. In fact, Jackson did not describe as wide a variety of incomplete clinical manifestations of epilepsy as Herpin did, but he went on to correlate their clinical patterns with sites of pathology in the brain. These correlations enabled Jackson to establish the existence of localization of function in the human cerebral cortex. Jackson's enormous contribution to the understanding human epileptology is well known, and most of it was developed before he became aware of Herpin's work, which had preceded his own. Had Herpin lived to see the publication of his second book, and been able to participate in the discussion that followed its appearance, and then to think further about the implications of his findings, it might have been Herpin, rather than Jackson, whom subsequent generations came to consider the father of modern-day epileptology.

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References

7. Jackson, J. H. and Purves, S. J. Epileptic attacks with a warning of a crude sensation of smell
The idiopathic generalized epilepsies constitute roughly one-third of all epilepsies. Juvenile myoclonic epilepsy (Janz syndrome) is characterized by myoclonic jerks on awakening, generalized tonic-clonic seizures, and typical absences, with the latter occurring in more than one-third of the patients. However, typical absences are not the predominant seizure type, and are usually very mild and simple (with no automatisms or localized limb jerks). Juvenile myoclonic epilepsy usually appears in adolescents between 12 and 18 years old. Half of patients with this condition have relatives with epilepsy. The Frenchman, Théodore Herpin (1799-1865), in *Des Accès Incomplets d'Epilepsie*, published posthumously in 1867, provided a very detailed account of a wide range of the possible manifestations of nonconvulsive epileptic seizures. However, he did not note the presence of absence seizures in any of his 300 patients who had experienced, at least in some of their attacks, what he considered were incomplete manifestations of epilepsy, the word "epilepsy" being taken to refer to full generalized tonic-clonic seizures. In the one patient, Herpin recognized that all epileptic seizures, Epilepsy is a common neurological disorder that has a varied presentation and requires two or more unprovoked seizures at least 24 hours apart for diagnosis. MRI is the modality of choice for epilepsy, most often investigating for an underlying condition. Potassium bromide was not introduced into therapeutics until after Herpin’s book appeared, and the anti-epileptic agents Herpin employed, particularly zinc lactate, of whose merits he thought highly, were not efficacious enough to permit his belief to be established by modern criteria of proof.