

Is an integrative perspective possible in brain sciences?

Dear Reader,

Functional Neurology has recently started striving to approach topics from an integrative perspective in order reinforce the links between experimental and clinical studies, and thus favor transitions from basic to applied research, and from the laboratory to the clinic. In short, the “new” *Functional Neurology* aims to provide an ideal interdisciplinary platform for new developments in brain science, with special attention to frontier technology and translational research.

The topics covered by the nine papers included in this issue of *Functional Neurology* may be divided into three broad fields: clinical epidemiology, diagnostics and therapeutics, and the role of neurology in public health.

Two of the papers fall into the first of these fields, exploring, respectively, the relationship between pain and Parkinson’ disease (PD) and the influence of depression on occupational transition in multiple sclerosis (MS). Rana et al. report the results of a cross-sectional study performed with the aims of establishing the prevalence of pain, investigating its clinical predictors and analyzing physical experiences of pain as described by PD patients, while Patten et al. analyze the complex association between depression and the risk of transition to non-working status in a cohort of MS patients, considering possible confounding factors (e.g. ambulation status, physical and mental quality of life).

Moving into the diagnostic and therapeutic field, Granata et al. present normative data on the bulbocavernosus reflex (BCR) in a large population of men. The BCR is considered one of the sacral neurophysiological tests of the greatest clinical utility and should be performed in every patient evaluated for a sacral nervous system dysfunction in whom the reflex cannot be clinically elicited. Thonnard et al. report an open-label study on the use of zolpidem, a drug often hailed, particularly in the non-scientific literature, as a “miracle drug” able to awaken patients with disorders of consciousness (DOC). No clinically significant improvement (i.e., change of diagnosis) was found in any the 60 studied chronic DOC patients. Finally, according to the findings of Verboschi et al., rehabilitation with MP-1 biofeedback seems to be a useful means of improving the fixation stability in patients with advanced glaucoma, and also their reading speed and quality of life. Finally, the clinical observation, by Di Lorenzo et al., of improved migraine in a pair of twin sisters during a ketogenic diet invites the conduction of a rigorous clinical study.

Finally, the three papers relating to the role of neurology in public health provide some interesting points for reflection. Smania et al., presenting the results of a national survey conducted to provide an overview of important issues relating to therapeutic strategies based on botulinum toxin type A injection for the treatment of neurological disorders, conclude that the routine use of this toxin in clinics is far from standardized, while Di Fabio et al., in a critical evaluation of 1,317 requests for electromyography, show that, in 17% of cases, the EMG was judged diagnostically useless by the neurophysiologist, which seems to indicate potentially suboptimal prescription of EMGs. Moreover, Scalmana et al., evaluating health care and social service use in a cohort of 712 patients with dementia, found that only 11.9% of patients used these services over a one-year period. In view of these findings, they highlight the need for public health authorities to plan and promote a network of health and social care services, based on a multidisciplinary approach, to treat and care for patients in the different stages of the disease, considering both the patient and the caregiver’s needs.

I am convinced that this issue of *Functional Neurology* will help to stimulate discussion on the need to promote links between experimental and clinical studies in brain science.

Co-Editor
Nicola Vanacore (Rome, Italy)