a report by

Jacques L De Reuck

President, European Federation of Neurological Societies (EFNS) and European Regional Director,
World Federation of Neurology (WFN)

During the last 40 years the approach to neurological diseases has changed tremendously. In the mid 1990s the diagnosis of nervous diseases was mainly made by a long and careful clinical examination. Neurological skills were particular useful in stroke patients and allowed a 90% accuracy concerning the location of the lesion. As stated by Miller Fisher residents best learn neurology stroke by stroke. The only technical tools were at that time blood and cerebrospinal fluid examination, electroencephalogram (EEG), carotid angiography and brain isotope scan. No efficient drugs for nervous system diseases were then available. At that time the only reliable way to confirm the diagnosis was the post-mortem brain examination, which was of course of no use for the patient himself but allowed neurologists to improve further their clinical aptitudes.

Clinical-pathological conferences are no longer popular due to the tremendous development of the neuro-imaging techniques and the increasingly frequent use of brain biopsies for non-tumoural diseases.

Autopsies – including the brain examination – are now rarely performed except in the field of forensic medicine.

In my view the main achievement in brain research is the rediscovery of the anatomical functions of the different cerebral regions changing our old concepts concerning the brain functions. This type of research, performed with functional magnetic resonance imaging (MRI) and positron emission tomography (PET), starts to have direct clinical applications.

Of course, these are not the only important achievements during the last 50 years. The progresses in neurochemistry, neurophysiology, neuroimmunology, genetics, brain traumata and tumours have also contributed to our better understanding of neurological diseases.

One other main evolution is that neurology has evolved from a purely contemplative speciality to one with many therapeutic options. Not only have many efficient drugs become now available but also one has discovered that by using electronic devices some neurological diseases such movement disorders and epilepsy can favourably be influenced.

Treatment of neurological diseases become increasingly expensive but brain disorders represent 23% of the burden of all diseases in industrial countries. This will increase further over the following years due to the increase of the ageing population.

The brain is probably the only organ that we will never be able to replace, so it is important that the "Decade of the Brain" should be prolonged and that the major expenses in medical research should be dedicated to the brain.

The current issue of *European Neurological Diseases* summarises the recent achievements in the different neurological fields and illustrates the continuous progresses that have been obtained.



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