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Neurology and psychiatry: "Oh, East is East and West is West …"

"…and never the twain shall meet". However far removed, the two specialties do have a common root. The main difference has been that disorders with behavioral disturbances came to be regarded as mainly "functional" without a structural basis, while neurology concerned itself with symptoms having an origin in organic changes.

Neurology has matured as a separate clinical specialty with close contacts with biology and similarities with internal medicine. At the same time, the influence of socioeconomic, familial, and interpersonal relationship brought a new dimension to clinical psychiatry. The two specialties drifted away from each other.

Neurology developed from a mainly diagnostic, descriptive specialty with few possibilities for therapeutic interventions into an active discipline based upon therapeutic manipulation of biological systems. The progress in functional MRI, improved imaging techniques, development in genetics, and the revolution in molecular medicine with its understanding of signal transmission in brain gave neurology a new image. The same development in psychiatry revealed how closely connected neurology and psychiatry really are. The artificial divide between structural and functional became unclear. For example, many dystonias that were regarded as "functional" and of psychogenic origin turned out to have a biological basis.

The development of behavioral neurology has effaced the border between neurology and psychiatry. With the development of imaging techniques it became possible to study the morphological correlates to personality traits and neuropsychiatric symptoms and relate these to genetic, biochemical, and neuroreceptor characteristics that serve to expand and modify the diagnostic classification. Psychiatry and neurology share a common basis in neuroscience. This development accelerated during the last decade and is now firmly established in basic research.

This does not mean that neurologists will be able to manage psychiatric disorders such as schizophrenia and depression. Nor will psychiatrists take over the care of patients with multiple sclerosis, epilepsies, or hereditary ataxias. Although evaluation of the mental status should be an integral part of a neurological examination, it has by tradition become the weakest part. A neurologist may spend more time examining motor disturbances than analyzing behavioral elements because he/she knows that the analysis of motor disturbances will give crucial information about the localization and extent of the process. The psychiatrist may leave much of the visual, auditive, motor, and sensory examination as being of lesser relevance.

Although there is still overlap in clinical practice, the specialties are developing in separate ways. Both neurology and psychiatry are becoming more and more subspecialized. Areas of crossfertilization remain such as epilepsy and dementia where neurologists and psychiatrists can supplement each other. Even in the process of subspecialization we are learning from each other. Psychiatrists become increasingly important in clinical neurology teams and vice versa, and both specialties profit from their joint platform in basic neuroscience (Eisenberg 2002).

Nevertheless, there is still a long way to go. Specialist training differs from country to country. In some countries psychiatry is a mandatory part of becoming a specialist in neurology, and neurology is a necessary element in the training of a psychiatrist.

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A process has been initiated in Europe to harmonize the different medical specialties. On a global basis, the challenge to the World Federation of Neurology and the World Psychiatric Association will be to work toward an integrated definition of the contents of the individual specialties.

We must not lose sight of our obligation to society. A recent study of medical costs revealed that brain disorders cause 35% of the burden of all diseases in Europe, with mental disorders making up 62% of this amount (Andlin-Sobocki et al 2005). The World Health Organization (WHO) is not concerned with specialties, but with public health, and it is time for these two specialties to take up this challenge and work together in this important area, both at the local and the WHO level.

Neurology and psychiatry may have developed from two sides of the earth, but there is much more that brings us together than which separates us. The two specialties are strong enough to stand face to face. As Kipling wrote a hundred years ago:

> *But there is neither East nor West, nor Border, nor Breed, nor Birth,*
> *When two strong men stand face to face, tho' they come from the ends of the earth!*

References

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