Sleep neurology

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a wakeup call for neurologists

Sleep medicine is an exploding field and yet the disorders of sleep, and the effects of sleep on many neurological disorders, have been largely ignored by the neurological community. This has both patient care and medico-political implications.

Amongst those who first described sleep apnoea was the great French neurologist Henri Gastaut. Whilst several groups, including neurologists, have maintained interest in neurological sleep disorders since those early days, the neurological fraternity has been remiss in not embracing sleep neurology with greater gusto. Patients with neurological sleep problems are poorly served overall by our discipline.

Recognition that sleep apnoea is a very common and treatable sleep disorder has resulted in the practice of sleep medicine being dominated by respiratory physicians. Much has been learned about sleep apnoea; this condition and disorders that may mimic it are skilfully managed in many respiratory orientated laboratories. However, in many countries there has been a promulgation of less sophisticated sleep laboratories whose role appears to be to determine whether a patient's symptoms are sleep apnoea or not: if not, there often is no further diagnostic or intellectual input by the non-neurologist physician and patients are left to fend for themselves, only occasionally stumbling upon appropriate care. Likewise, patients who present to neurologists with symptoms primarily relating to sleep such as daytime somnolence, or abnormal motor activity in sleep, are often left in a diagnostic vacuum after they have been put through a 'sausage machine' respiratory laboratory. They may be confidently told they do not have sleep apnoea, or worse, have a borderline diagnosis of this and may be inappropriately treated because there is no expertise for further diagnostic endeavour.

Neurologists need to be involved in the diagnosis and management of the common neurological disorders of sleep such as narcolepsy and restless legs syndrome/periodic movements during sleep as well as the less common. The rigor of the history and physical examination by an expert clinical neurologist trained in sleep disorders has the potential to lead to more accurate diagnosis and better patient care.

In addition, sleep medicine has a major impact on epileptology, stroke medicine, neuromuscular, movement, dementia and other degenerative disorders. We understand and manage these well for 16 hours of the day, but ignore the impact of the 8 hours of sleep! With the exception of epileptology, analysis of events during sleep is performed at a rudimentary level, if at all. Polysomnography performed for the investigation of sleep apnoea usually includes only a few EEG channels and is insufficient for the study of seizures and parasomnias. Moreover, when an unusual event occurs unexpectedly during a study for sleep apnoea, those few EEG channels are rarely sufficient to make a definitive diagnosis. We should seize the opportunity to extend our understanding of neurological disorders throughout the full 24 hours of the day and refine the investigations performed during sleep including polysomnography to make them relevant to the clinical problem. This will involve close co-operation with respiratory sleep physicians, something that they would welcome. It will also involve developing at least some skill in the assessment of patients with sleep apnoea, because sleep apnoea is so pervasive and often relevant to the presenting symptoms.

The social impact of sleep disorders also needs attention from neurologists. Sleep disorders impact on driving safety, vocational accidents and absenteeism. Early, accurate neurological diagnosis and treatment will have a major positive effect on society. Neurologists need to be involved with education of family medicine practitioners, other health professionals, health care providers, politicians and the public in the aspects of sleep medicine relevant to neurology.

Our patients with primary neurological sleep disorders and with neurological disorders with a significant sleep medicine component deserve better than they are getting. Young neurologists need to be trained in clinical aspects of sleep medicine relevant to neurology. Some should be encouraged to choose a career in sleep medicine and pursue further clinical training and develop an active interest in high quality polysomnography and other investigative techniques. Ideally, they should be working with respiratory sleep physicians and other members of a multidisciplinary team so that the patient gets the best medicine.

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