NEUROLOGY IN PRACTICE: EPILEPSY

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ii1

Epilepsy is a common chronic disorder affecting at least 350 000 persons in the UK. Patients with blackouts and suspected epilepsy account for about 20% of new referrals to neurological outpatients and those with epilepsy a considerable proportion of patients under follow up.

In the last two decades developments in epilepsy have occurred on several fronts, with improvements in classification; development of new drugs and greater understanding of pharmacokinetics of existing drugs; and advances in neuroimaging contributing to better treatment and understanding of the pathophysiology. There has been an increased awareness of its psychological and social implications and an appreciation of quality of life issues.

In this supplement the first two articles address the assessment and diagnosis of patients with suspected epilepsy and consider its wide differential diagnosis. The next article addresses the management of epilepsy and outlines a model of multidisciplinary care. Finally, there is a pragmatic account of the treatment of status epilepticus, including specific dose schedules that hopefully trainees will use as an accessible guide for this neurological emergency (perhaps for their white coat pocket).

This supplement is not intended to be comprehensive and hopefully our key references and web guide will direct readers to important sources of information. The neurophysiological evaluation of epilepsy and psychological aspects will be dealt with in detail in subsequent supplements.

KEY REFERENCES

Classification

- Proposal for revised classification of epilepsies and epileptic syndromes. Commission on classification and terminology of the International League Against Epilepsy. *Epilepsia* 1989;30:389-99.

This gives the current classification of epilepsy.

Epidemiology and outcome

- National General Practice Study of Epilepsy: newly diagnosed epileptic seizures in a general population. Sander JW, Hart YM, Johnson AL, *et al.* *Lancet* 1990;338:1267-71.
- National General Practice Study of Epilepsy: recurrence after a first seizure. Hart YM, Sander JW, Johnson AL, *et al.* for the NGPSE. *Lancet* 1990;336:1271-4.
- Prognosis of epilepsy: a review and further analysis of the first nine years of the British National General Practice Study of Epilepsy, a prospective population-based study. Cockerell OC, Johnson AL, Sander JW, *et al.* *Epilepsia* 1997;38:31-46.

These are some of the papers from the National General Practice Study of Epilepsy that provides invaluable information on incidence, prevalence, and natural history of epilepsy in the community.

- Descriptive epidemiology of epilepsy: contributions of population-based studies from Rochester, Minnesota. Hauser WA, Annegers JF, Rocca WA. *Mayo Clin Proc* 1996;71:576-86. A population based study from the USA.

Aetiology

- A population based study of seizures after traumatic brain injuries. Annegers JF, Hauser A, Coan SP, *et al.* *N Engl J Med* 1998;338:20-4.
A study looking at the risk of epilepsy after various types of head injury.
- Genetics of the epilepsies. Berkovic S, Scheffer IE. *Curr Opin Neurol* 1999;12:177-82.
A review of increasing understanding of the importance of genetics in epilepsy.

Imaging

- Imaging in epilepsy. Duncan JS. *Brain* 1997;120:339-77.
A definitive review on advances in imaging and their application to the diagnosis and management of epilepsy.

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Therapeutics

- ▶ Antiepileptic drugs. Brodie MJ, Dichter MA. *N Engl J Med* 1996;**334**:168–75.
 - ▶ The psychoses of epilepsy. Toone BK. *J Neurol Neurosurg Psychiatry* 2000;**69**:1–3. A review of older anticonvulsants.
 - ▶ New drug treatments for epilepsy. Marson AG, Chadwick DW. *J Neurol Neurosurg Psychiatry* 2001;**70**:143–8.
 - ▶ Neurological disorders; epilepsy. Clinical evidence writers. *Clinical Evidence* 2000.
 - ▶ Cochrane Epilepsy Group. Cochrane database of systematic reviews, issue 4, 2000; issue 4:717–24.
- These are reviews of some of the newer anticonvulsants and evidence from randomised controlled trials.
- ▶ Antiepileptic drug withdrawal study group. Randomised study of antiepileptic drug withdrawal in patients in remission. Medical Research Council. *Lancet* 1991;**337**:1175–80.
- A study assessing outcome from drug withdrawal.

Complications

- ▶ Incidence and risk factors in sudden unexpected death in epilepsy. Walczak TS, Leppik IE, D'Amelio M, *et al.* *Neurology* 2001;**56**:519–25.
 - ▶ Sudden unexpected death in epilepsy: a series of witnessed deaths. Langan Y, Nashef L, Sander JWAS. *J Neurol Neurosurg Psychiatry* 2000;**68**:211–13.
- Two articles exploring risks and mechanisms of sudden death in epilepsy (SUDEP).
- ▶ The psychoses of epilepsy. Toone BK. *J Neurol Neurosurg Psychiatry* 2000;**69**:1–3.

Syncope

- ▶ Syncope: a videometric analysis of 56 episodes of transient cerebral hypoxia. Lempert T, Bauer M, Schmidt D. *Ann Neurol* 1994;**36**:233–7.
- A seminal work that characterises the clinical manifestations of syncope.

Guidelines

- ▶ Diagnosis and management of epilepsy in adults. A national guideline recommended for use in Scotland. Scottish Intercollegiate Guidelines Network (SIGN), 1997.
 - ▶ Adults with poorly controlled epilepsy. Part 1 Clinical guidelines for treatment. Part 2 Practical tools for aiding epilepsy management. Royal College of Physicians of London, 1997.
 - ▶ A guideline for discontinuing antiepileptic drugs in seizure-free patients—summary statement. Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 1996;**47**:600–2.
 - ▶ Best practice guidelines for the management of women with epilepsy. Crawford P, Appleton R, Betts T, *et al*, for the Women with Epilepsy Guidelines Development Group. *Seizure* 1999;**8**:201–17.
- Advice on all aspects of management of epilepsy in women of childbearing age.
- ▶ Recommendation for neuroimaging of patients with epilepsy. Commission of the International League Against Epilepsy. *Epilepsia* 1997;**38**:1255–6.

Driving regulations

- ▶ At a glance; a guide for medical practitioners. DVLA Publications, September 2000.
- http://www.dvla.gov.uk/at_a_glance/chl/neurological.htm
- An essential guide to the regulations for the UK. A must for every trainee and consultant.

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