

Parasomnias – A sleep physician's perspective

Epilepsy Society of Australia 22nd Annual Meeting
Adelaide, November 8, 2007

Professor Doug McEVOY

Director, Adelaide Institute for Sleep Health, Adelaide, SOUTH AUSTRALIA



Australian Sleep Centres/ Laboratories

- 95-98% Sleep Breathing Disorders
- 2-5% Neurological Disorders
 - Restless Legs Syndrome/ Periodic Movements of Sleep
 - Narcolepsy-cataplexy syndrome
 - Parasomnias

Neurologists describe and popularise Obstructive Sleep Apnea

- **Henri Gastaut et al**
 - Demonstrated OSA by Polysomnography in “Pickwickian” patients in 1965
- **Christian Guilleminault et al**
 - Popularised OSA and Polysomnography in North America
 - *The sleep apnea syndromes. Annu Rev Med* 1976

Gastaut's publications 1965

- [Kerfriden P, Kerfriden M, Lecasble R, Arfel G, Larzul B, Gastaut H, Albe-Fessard D.](#) [The schooling of **epileptic children**. Longitudinal study of 32 children of the Centre de Toul-Ar-C'Hoat who successfully passed school examinations in 1965 and 1966] *Presse Med.* 1967 Jul 22;75(34):1751-3. French.
- [Gastaut H, Roger J, Lob H, Tassinari CA.](#) [New **anti-epileptic drugs**] *Encephale.* 1965 Sep-Oct;54(5):407-21. French.
- [Tassinari CA, Poire R, Pinsard N, Regis H, Roger J, Gastaut H.](#) Action of diazepam (Valium) on **nonepileptic** abnormal movements] *Rev Neurol (Paris).* 1965 Sep;113(3):372-81. French.
- [Glove G, Gastaut H.](#) [Alcoholic epilepsy and alcoholic precipitation of attacks in **epileptics**. (A clinical and electroencephalographic approach)] *Rev Neurol (Paris).* 1965 Sep;113(3):347-57.
- [Gastaut H, Naquet R, Poire R, Tassinari Ca.](#) Treatment of **status epilepticus** with diazepam (valium). *Epilepsia.* 1965 Jun;13:167-82.
- [Gastaut H, Tassinari CA, Duron B.](#) **Polygraphic study of diurnal and nocturnal (hypnic and respiratory) episodal manifestations of Pickwick syndrome** *Rev Neurol (Paris).* 1965 Jun;112(6):568-79. French.
- [Soulayrol R, Tassinari CA, Lob H, Roger J, Gastaut H.](#) [Therapeutic trial of a new **anti-epileptic** with 74 children seen at the Centre Saint-Paul] *Sem Hop.* 1965 May 20;41(24):1474-7. French.
- [Gastaut H, Roger J, Soulayrol R.](#) [Electroclinical Classification of Generalized **Epileptic Crises**.] *Brux Med.* 1965 Apr 18;45:441-7. French.
- [Gastaut H.](#) [Apropos of an international classification of **epileptic** seizures] *Mars Med.* 1965;102(5):461-8. French.

Parasomnias

- NREM – related
 - Sleep walking/ talking
 - Sleep terrors
 - Rhythmic movement disorder
 - Plante, Winkelman *Psychiat Clin Nth Am* 2006
- REM
 - REM behaviour disorder
 - Gagnon et al *Lancet Neurol* 2006
 - Nightmare disorder
- Other
 - Sleep-related dissociative disorders
 - Eg Sleep binge eating, sexsomnia
 - Scenck, Arnuf & Mahowald *Sleep* 2007
 - Head banging
 - Sleep Groaning

NREM Parasomnias

- Young adults
 - +ve history of childhood sleep walking
 - Re-emergence in adulthood
 - Psychological or physical trauma
 - Sleep restriction
 - Sleep history
 - First 1 – 1.5 hours
 - Difficult to arouse
 - Poor, or no dream recall
- Special cases
 - Complex dissociative behaviours
 - Sleep sex, sleep eating

Differential Diagnosis of Parasomnias

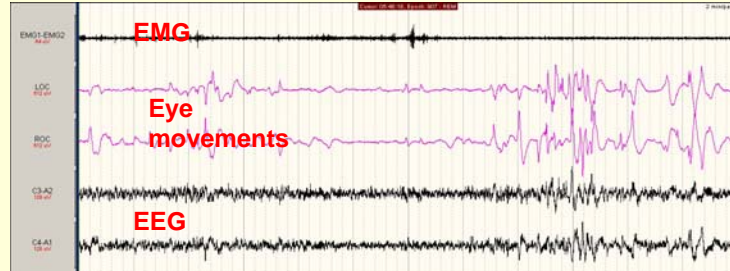
- Nocturnal epilepsy
 - Nocturnal Frontal Lobe Epilepsy
 - Temporal Lobe Epilepsy/ Complex Partial Seizures
- Severe sleep apnea
- Malingering

REM Behaviour Disorder

- Older males
- Injurious or disruptive behaviour during sleep
 - Easily aroused; Dream recall prominent
- Two-thirds of patients develop Parkinsons
 - mean latency of 13 years; associated with synucleinopathies (PD, LBD, MSA)
- Polysomnography diagnostically helpful
- Highly responsive to Clonazepam

REM Behaviour Disorder

NORMAL REM



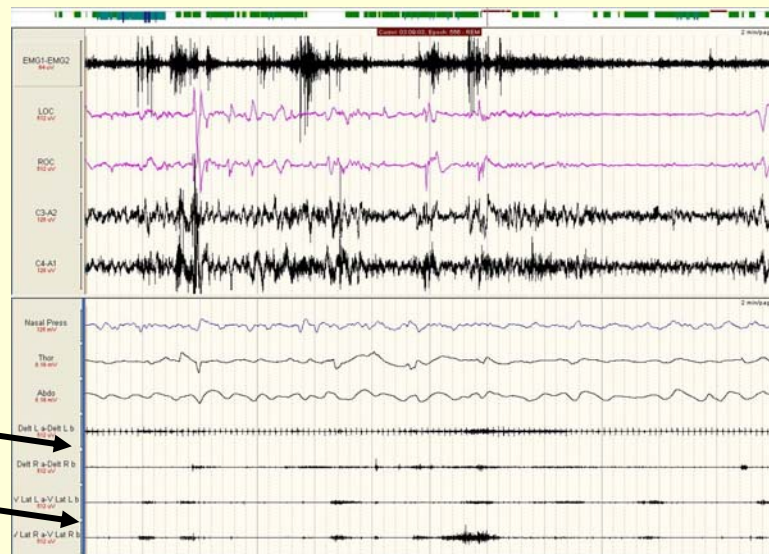
REM Behaviour Disorder



REM Behaviour Disorder

Arms

Legs



SUMMARY: Parasomnias

- Bimodal age distribution
 - NREM (young)
 - REM (elderly)
- **Important differential diagnosis is epilepsy**
- Diagnosis usually made on history
 - Polysomnography / Video-PSG can be helpful
- Treatments often highly effective

Periodic Limb Movements of Sleep

