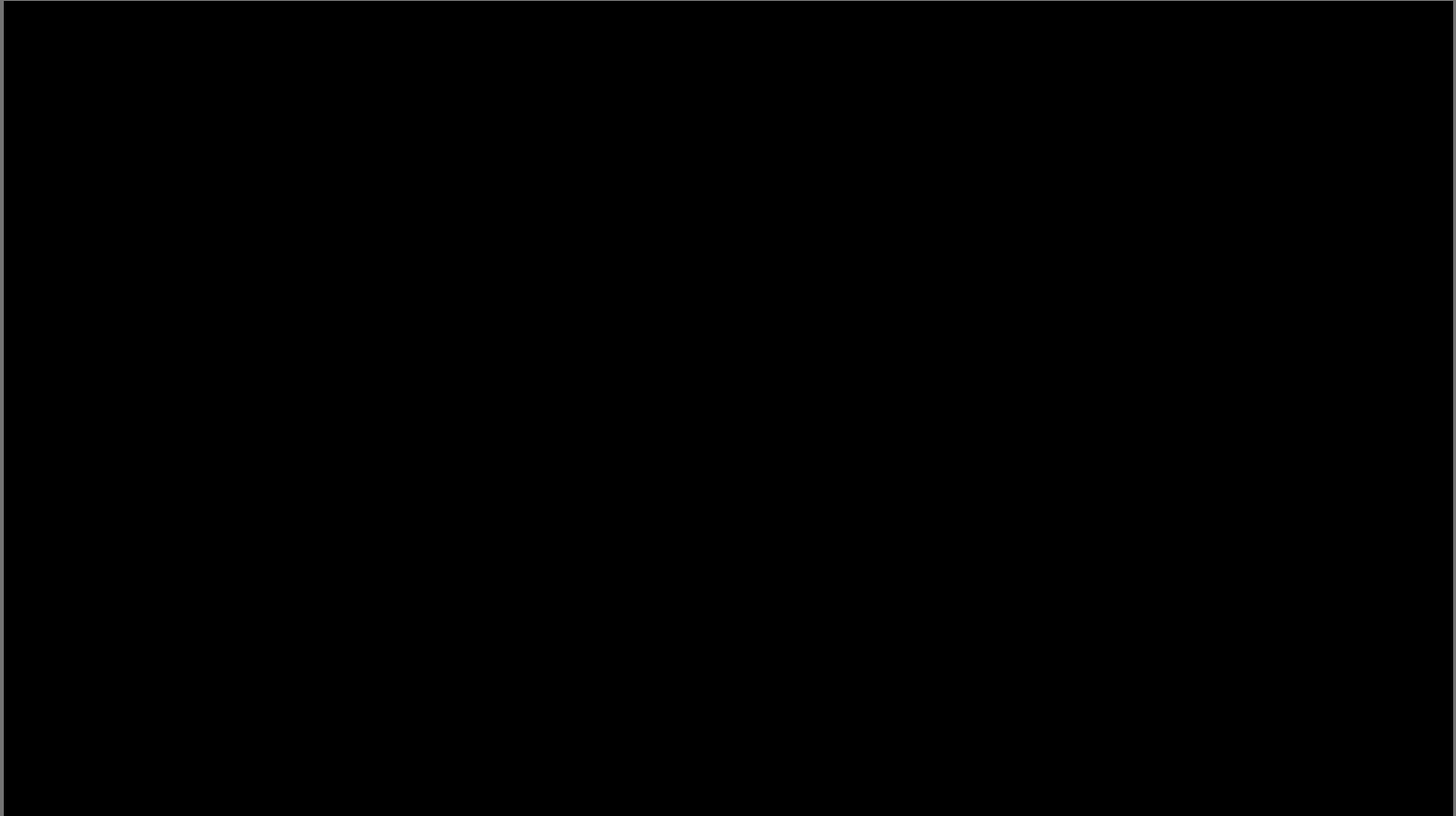


*What are non-epileptic
seizures and why do
people get them?*

*Richard Grünewald
Consultant Neurologist
Royal Hallamshire Hospital*

24 hours in A&E, Channel 4



Epileptic seizure

- Abnormal electrical activity in the brain.
- Seizures last about 90 seconds but rarely continue in ‘status epilepticus’ which is a medical emergency
- Chronic disorder. Sometimes secondary to head injury, stroke, alcohol, drugs or infection
- Patients may have an emergency care plan
- Prolonged post-ictal state.

Nonepileptic seizure definition

- (P)NES also known as pseudoseizures and nonepileptic attack disorder
- Attacks that resemble or may be mistaken for epileptic seizures, but which are not associated with measurable change in brain physiology, and have a known or presumed psychological cause
- This is commonest cause of prolonged convulsions (i.e. *not* status epilepticus)

What we are not talking about

- Fainting
- Heart rhythm abnormalities
- Anxiety attacks/hyperventilation

History

British VAD-nurse Claire Tisdall saw them coming in from the front: "I got quite used to carrying shell-shocked patients in the ambulance. It was a horrible thing, because they sometimes used to get these attacks, rather like epileptic fits in a way. They became quite unconscious, with violent shivering and shaking, and you had to keep them from banging themselves about too much until they came round again. Of course, these were the so-called milder cases; we didn't carry the dangerous ones. They always tried to keep that away from us and they came in a separate part of the train. They'd gone right off their heads. I didn't want to see them. There was nothing you could do and they were going to a special place. They were terrible."

Another nurse, Sister Mary Stollard: "They were very pathetic, these shell-shocked boys, and a lot of them were very sensitive about the fact that they were incontinent. They'd say, "I'm terribly sorry about it, Sister, it's shaken me all over and I can't control it. Just imagine, to wet the bed at my age!"

Prevalence

- About one third of the patients attending the epilepsy clinic in Sheffield have NES
- About 9% of patients with NES have LD
- About 30% of patients with LD have epilepsy
 - Perhaps one third of these also have PNES

Non-Epileptic Psychogenic Seizures (NES)

- Types:
 - Dissociative events
 - Behavioral outbursts which are misinterpreted
 - Malingering/manipulative behavior

NES – how are they described?

- Little content of seizure description
- Vague
- Unable to say how often they occur
- Associated personality disorder and medically unexplained symptoms

NES – what eyewitnesses report?

- Variability in descriptions
- Duration more than 2 mins, often presenting as “status”
- Waxing and waning of motor activity or prolonged unresponsiveness
- Sinusoidal shaking, side to side head movements
- Pelvic thrusting
- Post-ictal crying
- Partial responsiveness during seizures
- Resistance to eye opening
- Unexpected rapid or slow recovery
- May be precipitated by stressful situations

Grünewald's law

- If a patient is lying motionless for many minutes as if asleep they are either asleep or having a NES

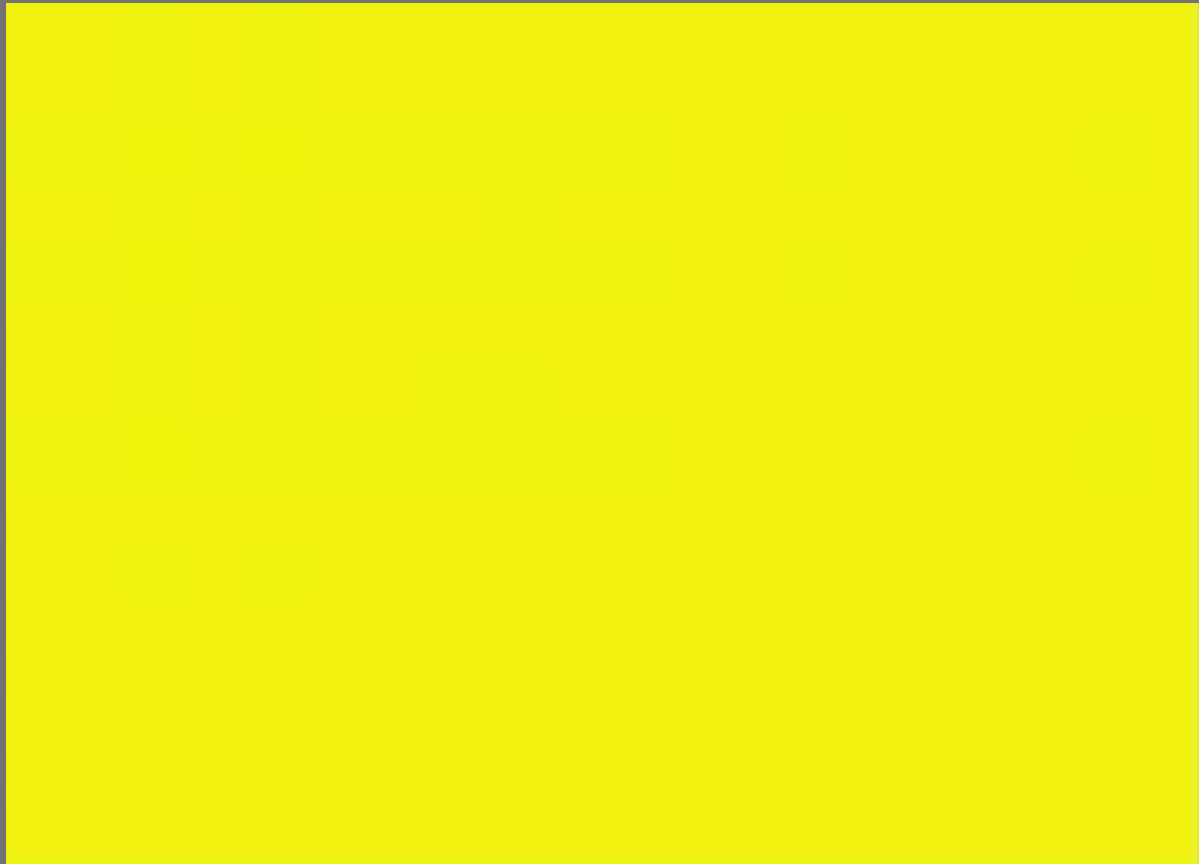
What are these attacks?

- Controversial
- Close relationship to psychological trauma
 - Something intolerable or unacceptable
 - Outside personal control
- Dissociation
 - Different from coma
 - Distraction, displacement, dissociation
- Hyper- or hypo-arousal state

The problem of rationality

- Doctors like to think that everything that they do (and what their patients do) is under their own rational control
- The idea of functional (emotionally-generated) symptoms challenges this
- PNES are an unequivocal example of functional symptomatology, and one which is easy to understand

Emotional block to movement



The problem of memory

- The most significant memories are most persistent
- Traumatic events precipitate flashbacks
- Dissociation is a reflex to protect against distressing flashbacks.
- Dissociation is not unconsciousness in the same way as sleep or anaesthesia – instead *it is similar to directed attention* or meditation

Common associated trauma

- Sexual abuse, rape
- Physical abuse
- Emotional abuse
- Witnessed events

Why now?

- Onset delayed from trauma
- Provoking factors may be very obscure
- Associated with
 - Functional symptoms
 - Self harm
 - Personality disorders

NES and Learning Disability

- Longer diagnostic delay in those with LD than those without
- More people with LD have both epilepsy and PNES than people without LD
- Lower proportion of those with LD give history of sexual abuse, but history of physical abuse similar (?gender bias)
- Multiple medically unexplained symptoms in about 60%
- Anxiety, depression, self harm also common

NES and Learning Disability

- Pseudostatus commoner in those with LD (40%)
- Emotional triggers more commonly trigger attacks in LD
- These are often rather different attacks
 - Represent behavioural manifestations of frustration, pain, manipulative behaviour

Case

- Born 1988. Microcephaly, severe learning disability, blindness, cerebral palsy, fed by gastrostomy.
- Seizures and agitated episodes for years
- Seizures prolonged require termination with buccal midazolam
- Treated with valproate and lamotrigine
- Lives in care home

Malingering and Munchausen syndrome

- Malingering – fabrication of symptoms for gain
- Munchausen – severe form in which people will make themselves ill

Conclusion

- Nonepileptic attacks are common
- Suspect when:
 - Explosive onset of seizures
 - Prolonged seizures, seizures which wax and wane
 - You witness one!
- Clear and obvious marker of psychological distress
 - Consider the possibility of physical, emotional or sexual abuse (protection issue?)