Epilepsy and psychiatry

Roderick Duncan MD PhD FRCP

Consultant Neurologist, Christchurch Hospital
Associate Professor of Neurology, University of Otago
Epilepsy and psychiatry

Depression

Psychosis

Psychogenic seizures
Prevalence in patients with epilepsy:

Depression (15-60%)

Psychosis (5-20%)

Psychogenic seizures (5%)

Estimates are based on hospital series, intractable epilepsy, unvalidated survey instruments etc., but there are some reasonable studies of depression and psychosis:
Random sample of 36,984 from Canadian households - 253 (0.6%) had epilepsy

<table>
<thead>
<tr>
<th></th>
<th>No epilepsy</th>
<th>Epilepsy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major depression</td>
<td>10.7</td>
<td>17.4</td>
</tr>
<tr>
<td>Any mental health disorder</td>
<td>20.7</td>
<td>35.5**</td>
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</table>
Are people just depressed because they have epilepsy?

Depression is more common if seizures are uncontrolled, and increases with number of AED.
But …. 

A history of depression prospectively increases risk of epilepsy by 3-7 times 

(5 population studies) 

Conclusion = causation is a combination of environment, shared genetic susceptibility and drug effects
5.2% had psychosis (hr 5.5 (3.1-9.9))

2.4% had schizophrenia (hr 8.5 (3.4-20.9))

Family history of epilepsy approximately doubled the risk of psychosis and vice versa

Conclusion = shared genetic susceptibility
‘Interictal’ psychosis

Usually indistinguishable from schizophrenia
Onset approx 15 years after epilepsy

Focal epilepsies > generalized epilepsies
TLE > other focal epilepsies (?)

No laterality
No other predisposing factors
Imaging studies inconclusive
Postictal psychosis

Less schizophreniform, more mania-like
Following a seizure or cluster
Lucid interval

Bitemporal pathology
Malformations

Family history of mood disorder
Tends to ‘morph’ into interictal psychosis
Epilepsy & psychosis - a diagnostic issue

If a patient presents with psychosis, is it likely that it’s all because they’re having a seizure?

Or that they’re in partial status?
Ictal seizure manifestations that might be labelled ‘psychotic’:

Horror
Elation
Fear

Auditory hallucinations
Visual hallucinations

Dissociation (feelings of unreality)

Characteristics: short, stereotyped, followed by seizures
How do seizures work? Some neurobiology .......
Ictal hallucinations are:

- Short
- Simple
- Stereotyped

And occur with other manifestations suggestive of seizures
The significance of interictal EEG discharges:

2.5 - 5% of patients with psychiatric illness and no epilepsy have epileptiform discharges on EEG

Only 40% of patients with epilepsy have epileptiform discharges on EEG
The usual interictal medial temporal epilepsy at depth .......
Psychosis and **interictal eileptiform discharges**:

<table>
<thead>
<tr>
<th>Study</th>
<th>EEG</th>
<th>Electrophysiology</th>
<th>Psychopathology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wieser et al. (1985)</td>
<td>SEEG</td>
<td>Temporal lobe status epilepticus.</td>
<td>Stickiness, aggressivity, dysphoria and depression</td>
</tr>
<tr>
<td>Trimble (1991)</td>
<td>Sphenoidal EEG</td>
<td>Frequent sharp waves with phase reversals on the right.</td>
<td>Paranoid schizophreniform psychosis</td>
</tr>
<tr>
<td>Takeda et al. (2001)</td>
<td>SEEG</td>
<td>Left amygdala discharges becoming almost continuous.</td>
<td>Internal dialogue with the voices of her parents, restless, anxious and fearful</td>
</tr>
<tr>
<td>Kanemoto (1997)</td>
<td>SEEG</td>
<td>Clear cut epileptiform discharge in left amygdalo-hippocampal region.</td>
<td>Capgras syndrome</td>
</tr>
<tr>
<td>Kristensen and Sindrup (1978)</td>
<td>Spehnoidal EEG</td>
<td>Temporal medio-basal spike foci. More frequent and more likely bilateral than in non-psychotic controls.</td>
<td>Paranoid/hallucinatory interictal psychosis</td>
</tr>
</tbody>
</table>
Psychogenic seizures
Who gets psychogenic seizures?

75% are women

Mean onset age is 35 (range childhood - old age)

Incidence is 5-7/100,000/year

Prevalence in epilepsy populations approx. 5%

General prevalence approx. 0.05%
The psychogenic seizures population:

10% have epilepsy

60% have other MUS

Most are in the lower half of socio-economic scales
To the eyewitness, there are three main types of pseudoseizure:

Convulsive (60%)

Swoon (pseudosyncope) (30%)

Absence (10%)

Other presentations are uncommon
Differential diagnosis

Convulsive PS vs convulsive seizures

Non-convulsive PS vs syncope
The stranger and more bizarre it looks, the more likely it is to be epilepsy.
Diagnosis

History

Eyewitness accounts

Video

Ambulatory EEG

Video EEG (IP or OP)
Suspect PS if:

- Many major attacks per day, patient well
- Long attacks
- Long convulsive attack, pink patient
- Fall-down-lie-still for more than 2 minutes

Unexplained exacerbation of ‘epilepsy’

- Attacks in medical situations
- Attacks on coming out of anaesthetic
- Attacks with onset in pregnancy
- Situational triggering
A few diagnostic myths ...
Injury

Incontinence of urine

Attacks during sleep

Stereotyped attacks

Tongue biting ……. 
Thermal burns = epilepsy

Friction burns = psychogenic seizures
Management of PS

Communicate the diagnosis

Withdraw the medication

Psychological intervention
Explain the diagnosis

20-40% of patients stop having PS

Up to 50% stop presenting as emergencies

Large reduction in healthcare demand
Withdraw the medication

Safety of medication withdrawal

RCT of medication withdrawal:

Trend to improvement in PS

Significant effect on healthcare utilisation
Psychological intervention

Controversial

Two small RCTs supporting the use of CBT approaches, but effect not spectacular and may be transient

Trial of AD negative

Observational study of psychotherapy
Long term outcome

Healthcare utilisation outcomes are relatively good

Economic outcomes are poor

Seizure outcomes are mixed
Why is he right?

Why is he wrong?

One of the doctors on your team saw her recently and questioned the certainty surrounding her epilepsy and proposed concurrent EEG, video, some long-term exposure to a portable EEG machine and possible admission for withdrawal from anti-epileptic drugs.

As I said at the beginning of this letter, some token exploration and tinkering with her anti-epileptic medication has always been helpful. She needs to feel that she is attended to. A radical change in her medication and to discover that she wasn’t believed to be epileptic at all would, in my view, be very destructive.

I hope you won’t feel this letter is an impertinence and I would like this letter to be regarded as something that would be harmful if it fell into [redacted]’s hands.

Yours sincerely

[Redacted]

Consultant Psychiatrist