WHAT IS “PSEUDO” ABOUT PSEUDOEIZURES
A REVIEW OF CONVERSION DISORDER

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Answer: NOTHING
Overview:

• Historical Context to Conversion Disorder
  – Focus of Discussion: “Pseudoseizures,” now described as *Psychogenic Nonepileptic Seizures (PNES)*

• Epidemiology of Conversion Disorders

• Differential Diagnosis of Conversion Disorders

• How to Treat Conversion Disorders
  – Interactional Difficulties

• How to Discuss Conversion Disorders with Patients and their Families
Historical Context to Conversion Disorder

• “Conversion” was first coined by Sigmund Freud (1885)
  – discussed unconscious conflicts in one of his female patients (Anna O)
  – early trauma leads to repression, then excitation or affective energy which allows avoidance of psychic conflict, described as “la belle indifference”
    • viewed a psychologically induced

• Jean-Martin Charcot (1863)
  – focused on a more deductive approach to symptoms, looking for an underlying anatomic cause for symptoms
  – noted heritability of symptoms and association with trauma
Historical Context to “Pseudoseizures”

– Why call it Psychogenic Nonepileptic Seizures (PNES)?

  • *PSEUDO* = “not genuine: not authentic or sincere, in spite of appearances” (from Encarta World Dictionary)
  • Historically, “hysterical seizures” and “hysteroepilepsy” were used – outdated and oversimplified

– “Conversion Disorder” is even becoming outdated

  • DSM-5 will change the diagnosis to “Functional Neurological Symptom Disorder”
    – remove feigning criteria
    – no requirement for a psychological stressor
Somatoform Disorders for DSM-IV-TR

1) Somatization Disorder
2) Hypochondriasis
3) Body Dysmorphic Disorder
4) Pain Disorder
5) Conversion Disorder
6) Undifferentiated Somatoform Disorder
7) Somatoform Disorder Not Otherwise Specified
Conversion Disorder

DSM-IV-TR Criteria:

A. One or more symptoms or deficits affecting voluntary motor or sensory function that suggest a neurological or other general medical condition.

B. Psychological factors are judged to be associated with the symptom or deficit because the initiation or exacerbation of the symptom or deficit is preceded by conflicts or other stressors.

C. The symptom or deficit is not intentionally produced or feigned (as in Factitious Disorder or Malingering).

D. The symptom or deficit cannot, after appropriate investigation, be fully explained by a general medical condition, or by the direct effects of a substance, or as a culturally sanctioned behavior or experience.
Conversion Disorders

DSM-IV-TR Criteria (cont.):

E. The symptom or deficit causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or warrants medical evaluation.

F. The symptom or deficit is not limited to pain or sexual dysfunction, does not occur exclusively during the course of Somatization Disorder, and is not better accounted for by another mental disorder.

– Specify type of symptom or deficit:
  - With Motor Symptom or Deficit
  - With Sensory Symptom or Deficit
  - With Seizures or Convulsions
  - With Mixed Presentation
Conversion Disorders

• Common Symptoms:
  – MOTOR:
    • involuntary movements, tics, torticollis, seizures, abnormal gait, falling, astasia-abasia, paralysis, weakness, aphonia
  – SENSORY:
    • anesthesia (especially midline and extremities), deafness, blindness, tunnel vision
  – VISCERAL:
    • psychogenic vomiting, pseudocyesis (phantom pregnancy), syncope/presyncope, urinary retention, diarrhea, and Globus hystericus
Epidemiology of Conversion Disorders

- Some symptoms of conversion disorder (not meeting full criteria) occur in up to 1/3 of population throughout their lifetime
- Annual incidence: 11 to 500 per 100,000 (per DSM-IV-TR)
- Female : Male = 2 to 10 : 1
- Up to 5-15% of psychiatric consultations in general hospital; 25-30% in VA population
- **Frequency of Sub-Types:**
  - Motor symptoms 25%
  - Epileptic subtype 24%
  - Sensory symptoms 5%
  - Mixed subtype 47%
Epidemiology of PNES

• Estimates of Prevalence: 2 to 33 per 100,000

• Typical Presentation – 3rd decade of life
  – seen earlier in those with significant trauma or learning disabilities

• Female Predominance – up to 66-99% cases

• In those referred to neurological/epilepsy centers:
  – 5-25% in outpatient centers likely have PNES
  – 25-40% of those seen in inpatient monitoring centers for refractory/intractible seizures have PNES
Conversion Disorders

• What is the cause?
  – Distress is converted from emotional symptoms (sadness, anger, etc.) to physical symptoms that affect the nervous system
    • CONFLICT: instinctual impulse vs. prohibitions against expression
    • allows partial expression with the urge to mask these symptoms
    • symptoms often have symbolism to unconscious conflict
  – Depression and anxiety (both expressed and not expressed) can lead one’s body to convert emotional pain to physical pain
  – This conversion causes an chemical change in the body that causes loss of conscious control of that part of the body
Proposed mechanism of functional neurological symptoms in one recent cognitive model. [83] Exposure to symptom relevant information leads to the creation of corresponding representations in memory.

REFERENCE: Carson A J et al. J Neurol Neurosurg Psychiatry 2012;83:842-850
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Differential Diagnosis

• What is **not** Conversion Disorder:
  – malingering
  – factitious disorder
  – epileptic seizures, strokes, tics, blindness or other damage to the nervous system
Differential Diagnosis

- MALINGERING:
  - Not considered a psychiatric illness
  - "The essential feature of Malingering is the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives such as avoiding military duty, avoiding work, obtaining financial compensation, evading criminal prosecution, or obtaining drugs“ (DSM-IV-TR)
Differential Diagnosis

• FACTITIOUS DISORDER:

A. Intentional production or feigning of physical or psychological signs or symptoms.

B. The motivation for the behavior is to assume the sick role.

C. External incentives for the behavior (such as economic gain, avoiding legal responsibility, or improving physical well-being, as in Malingering) are absent.

SUBTYPES:

– With Predominantly Psychological Signs and Symptoms: if psychological signs and symptoms predominate in the clinical presentation

– With Predominantly Physical Signs and Symptoms: if physical signs and symptoms predominate in the clinical presentation

– With Combined Psychological and Physical Signs and Symptoms: if both psychological and physical signs and symptoms are present but neither predominates in the clinical presentation
How to Differentiate PNES from Epileptic Seizures

• Focus on history from patients and others:
  – descriptions, both prodromal and postictal
  – precipitants and location/situation of events
    • PNES episodes mainly occur in front of others
    • MD waiting room episodes – 75% predictive for PNES
    • PNES is not likely in sleep
  – frequency and duration of episode
  – factors that reduce the duration of episode or the frequency of episodes
<table>
<thead>
<tr>
<th>Sign</th>
<th>Epileptic</th>
<th>PNES</th>
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<tbody>
<tr>
<td>Duration</td>
<td>Usually brief, less than 1-2 minutes</td>
<td>Usually longer than 2 minutes</td>
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<tr>
<td>Eyes</td>
<td>Eyes usually open during event</td>
<td>Eyes often closed</td>
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<tr>
<td></td>
<td></td>
<td>Forced eye closure suggests PNES</td>
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<tr>
<td>Motor activity</td>
<td>Stereotyped</td>
<td>Variable</td>
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<tr>
<td></td>
<td>Synchronized</td>
<td>Forward pelvic thrusting, rolling side to side,</td>
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<td></td>
<td>Build, progress</td>
<td>opisthotonus</td>
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<tr>
<td></td>
<td></td>
<td>Wax and wane</td>
</tr>
<tr>
<td>Vocalization</td>
<td>Uncommon, especially during convulsion</td>
<td>May occur</td>
</tr>
<tr>
<td>Prolonged ictal atonia</td>
<td>Very rare</td>
<td>May occur</td>
</tr>
<tr>
<td>Incontinence</td>
<td>Common in convulsive seizures</td>
<td>Less common</td>
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<tr>
<td>Autonomic signs</td>
<td>Cyanosis, tachycardia common with major convulsion</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Postictal symptoms</td>
<td>Usually confused, drowsy</td>
<td>May rapidly awaken and reorient</td>
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<td></td>
<td>Headache common</td>
<td>Headache rare</td>
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* No single feature is sensitive or specific for epileptic versus psychogenic nonepileptic seizures.
## Imitators of epilepsy: Nonepileptic paroxysmal disorders

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<thead>
<tr>
<th><strong>Neonates</strong></th>
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<tbody>
<tr>
<td>Apnea</td>
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<td>Jitteriness</td>
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<tr>
<td>Benign neonatal sleep myoclonus</td>
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<td>Hyperkplexia</td>
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<th><strong>Infants</strong></th>
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<tr>
<td>Breath-holding spells</td>
<td></td>
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<tr>
<td>Benign myoclonus of infancy</td>
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<tr>
<td>Shuddering attacks</td>
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<td>Sandifer syndrome</td>
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<tr>
<td>Benign torticollis in infancy</td>
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<tr>
<td>Abnormal eye movements (e.g., spasms nutans, opsoclonus-myoclonus)</td>
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<td>Rhythmic movement disorder (head banging)</td>
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<tr>
<th><strong>Children</strong></th>
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<tr>
<td>Breath-holding spells</td>
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<tr>
<td>Vasovagal syncope</td>
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<tr>
<td>Migraine</td>
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<td>Benign paroxysmal vertigo</td>
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<td>Staring spells</td>
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<td>Tic disorders and Stereotypies</td>
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<tr>
<td>Rhythmic movement disorder</td>
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<tr>
<td>Parasomnias</td>
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<thead>
<tr>
<th><strong>Adolescents and young adults</strong></th>
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<tbody>
<tr>
<td>Vasovagal syncope</td>
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<tr>
<td>Narcolepsy</td>
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<td>Periodic limb movements of sleep</td>
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<td>Sleep starts</td>
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<tr>
<td>Paroxysmal dyskinesia</td>
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<td>Tic disorders</td>
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<td>Hemifacial spasm</td>
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<td>Stiff person syndrome</td>
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<td>Migraine</td>
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<tr>
<td>Psychogenic nonepileptic pseudoseizures</td>
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<tr>
<td>Hallucinations</td>
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<th><strong>Older adults</strong></th>
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<tr>
<td>Cardiogenic syncope</td>
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<tr>
<td>Transient ischemic attack</td>
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<td>Drop attacks</td>
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<tr>
<td>Transient global amnesia</td>
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<tr>
<td>Delirium or Toxic-metabolic encephalopathy</td>
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<tr>
<td>Rapid eye movement sleep disorder</td>
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Does the Distinction Really Matter?

• Can’t everyone just go on antiepileptic medications, most of which are mood stabilizers?
  – antiepileptic drugs are associated with potential morbidity and side-effects
  – for concerns of “status epilepticus” – hospitalization, high doses of antiepileptics, intubation, medically-induced coma
  – pregnancy risks with antiepileptics
Provider Burden

• Functional Neurological Symptoms treatment ranks last in US neurologists “most likeable conditions” list and tops the “most difficult to help” list for UK neurologists

• Delay in PNES diagnosis is often very significant
  – up to 9 to 16 years in some studies

• These issues may lead to persistence of functional neurologic symptoms and unneeded interventions
How To Discuss

• What families should know about Conversion Disorder:
  – This is a treatable issue with symptoms that will get better over time
  – Stress needs to be expressed by the body, either by words or symptoms – conversion disorder is a body’s way of “blowing off steam,” sending “false alarms” to the nervous system
  – Conversion disorder is as serious, impairing, and disabling as any medical disorder (epilepsy, stroke) and should be treated that way
How to Discuss

• What families should know about Conversion Disorder (continued):
  – Emotional issues in conversion disorder can result in real chemical changes in the body that have been measurable in research studies
  – This diagnosis will only be made after a thorough medical and psychiatric assessment has been completed
  – Symptoms can change significantly over time into other areas of the body – new symptoms will be evaluated and assessed by the treatment team
How to Discuss

• What families should know about Conversion Disorder (continued):
  – Treatment consists of both individual and family therapy along with the potential for medication use to address underlying anxiety, depression, or trauma (if your physician feels it could help)
  – Symptoms/medical complaints are, unfortunately, expected to get worse at the start of treatment
  – This diagnosis and treatment can often cause “mixed emotions” in families that cause many different reactions, including the potential for anger, frustration, worry, sadness, and hopelessness at times
How to Discuss

• What families should know about Conversion Disorder (continued):
  – To avoid unnecessary tests and medical treatments, researchers have found that coordination and discussion between all doctors and therapists is essential - this is the way to provide the best care
  – Regular appointments with medical and mental health providers can be helpful – this should be discussed with your treatment team
FAMILY RESOURCES

• Rebecca J. Frey, Ph.D., “Conversion Disorder.”


• National Institute of Mental Health. 6001 Executive Boulevard, Room 8184, MSC 9663, Bethesda, MD 20892-9663 – phone: (301) 443-4513. [www.nimh.nih.gov](http://www.nimh.nih.gov)
PRESENTATION REFERENCES


TREATMENT

DISCUSSION