Panic Disorder

Background

1. Definition
    - Recurrent acute attacks of anxiety, fear, or discomfort which peak within seconds to minutes and are associated with overwhelming feelings of dread and autonomic activation
    - Persistent worry, avoidance behaviors, limiting social interaction for fear of repeat attack

Pathophysiology[2]

1. Pathology of disease
    - Current area of active neuroanatomic research regarding anatomic brain centers (cortex vs brain stem) and neurotransmitters involved
    - Recent psychosocial stressors associated with onset of first attack

2. **Incidence, prevalence**
    - 12 month prevalence: 3.2% women, 1.3% men
    - Lifetime prevalence: 5% women, 2% men
    - Bimodal distribution: peaks in late adolescence and 30s
    - Single attacks occur up to 30-35% people (not meeting DSM-IV criteria for diagnosis of panic disorder)
    - Most common anxiety disorder in primary care (about 8% patients)

3. **Risk factors**[5]
    - Genetic: Monozygotic twins, first degree relatives with panic disorders (40% heritability)
    - Major life stressors in last 12 months
    - Hx of sexual or physical abuse in childhood
    - Anxious temperament or anxiety sensitivity
    - 90% will have additional psychiatric disorder (ex: major depression, general anxiety disorder, agoraphobia, PTSD, bipolar disorder, alcohol abuse)

4. **Morbidity/ mortality**
    - Relapsing, remitting: 20% of patients have a chronic disease course
    - 70% patients clinically depressed or with agoraphobia
    - 20% patients attempt suicide
    - Associated with increased risk of coronary heart disease (Women's Health Initiative)
    - 50% recover with appropriate treatment

Diagnostics

1. History
    - HPI
    - Description of attack:
        - Chest pain, hyperventilation, IBS, unexplained dizziness/palpitations
        - Symptoms peak at 5-10 minutes, subside slowly over 30-60 min

        - If recurrent attacks the patient may develop extreme anxiety regarding potential of future attacks
    - Evaluation for safety of patient (e.g. suicidal ideation)
    - Severity of functional impairment
    - PMH:
        - Past psychiatric hx
        - Personal hx (major life events/stressors)
    - Medications:
        - Stimulants (cocaine, OTC pseudoephedrine, caffeine)
        - Alcohol abuse
2. Physical examination
    - Nonspecific findings
    - During panic attack: tachycardia, sweating, tremor, air hunger
3. Diagnostic testing
    - Laboratory Evaluation
        - None required for diagnosis
        - Evaluating for other causes: BMP, TSH, EKG, depression screen, alcohol screen,
    - Diagnostic Imaging
        - None required for diagnosis
        - Consider: Echo for mitral valve prolapsed

4. **DSM-IV-TR Diagnostic Criteria**
    - Discrete period of intense fear or discomfort with 4 or more of following symptoms
    - Develop abruptly, peak within 10 minutes of onset
        - Palpitations, pounding heart, accelerated heart rate
        - Sweating
        - Trembling or shaking
        - Sensations of shortness of breath or smothering, air hunger
        - Sensation of choking
        - Chest pain or discomfort
        - Nausea or abdominal distress
        - Feeling dizzy, unsteady, lightheaded, or faint
        - Derealization (feelings of unreality) or depersonalization (being detached from oneself)
        - Fear of losing control or going crazy
        - Fear of dying
        - Paresthesias (numbness or tingling sensations)
        - Chills or hot flushes

Differential Diagnosis

1. Key Differential Diagnosis
    - Hyperthyroidism
    - Caffeine use
    - Stimulant use or abuse
    - Partial complex seizures
    - Temporal lobe epilepsy

- Asthma
- Cardiac arrhythmias
- Alcohol withdrawal
- Pheochromocytoma
- Corticosteroid treatment

2. Extensive Differential Diagnosis
    - Psych: depression, schizophrenia, mania, atypical psychosis, adjustment disorder, OCD, PTSD, phobia
    - Social: substance abuse (cocaine, stimulants, alcohol)
    - Neuro: cerebral neoplasm, trauma, postconcussive syndrome, migraine, encephalitis, multiple sclerosis, epilepsy, subarachnoid hemorrhage, partial seizures
    - Cardio: PSVT or other cardiac arrythmias
    - Endocrine: hyperthyroidism, pheochromocytoma, pituitary disease
    - Inflammatory: RA, temporal arteritis, SLE or other autoimmune disease
    - Toxicity: vasopressors, caffeine, PCN, cannabis, mercury, alcohol and drug withdrawal, amphetamines, sympathomimetic drugs, organophosphates, aspirin
    - Drugs with panic attacks as potential side effect: buspirone, estrogens, levodopa, ondansetron, supatripan

Therapeutics

1. Treatment overview
    - Indicated when symptoms interfere with functioning or cause significant distress
    - Effective treatment aimed at reducing frequency/intensity of panic attacks AND reducing anticipatory anxiety and agoraphobic avoidance
    - Consists of supportive and explanatory model (it is not "all in patient's head)
    - Treat underlying mood disorder if present
2. Acute Treatment
    - Antidepressants
        - SSRIs: Sertraline, paroxetine, fluoxetine, citalopram, escitalopram
        - Tricyclic antidepressants: imipramine, clomipramine
        - Efficacy may take 4-6 weeks, full response may take 8-12 weeks
    - Benzodiazepines
        - Preferentially used for short term acute treatment
        - First line for acute crisis, especially for patients at risk for social or operational dysfunction
        - Ex: alprazolam, clonazepam, diazepam, lorazepam, oxazepam
        - Adverse effects:
            - Sedation
            - Increased falls in elderly
            - Respiratory depression
            - Hypotension
            - Physical dependence (in long term use)
            - Insomnia
            - Constipation

        - Withdrawal: rebound anxiety, insomnia, nausea, vomiting, irritability, delirium, rarely seizures
            - May occur after abrupt or rapid discontinuation
            - More likely with short-acting benzodiazepines
        - Drugs relatively ineffective for panic disorder
            - Bupropion, trazodone, amoxapine, clonidine
            - Beta blockers insufficient as primary treatment
                - May reduce physical symptoms such as tremor and tachycardia

3. Further Management
    - Cognitive behavioral therapy (CBT)
        - Appears to be as effective as pharmacotherapy
        - Combination of CBT and antidepressant more effective than either treatment alone
        - Components: education about anxiety, cognitive intervention, relaxation, controlled breathing, exposure techniques
    - Increasing physical activity
        - Aerobic exercise beneficial
4. Long Term Care
    - Regular clinic visits
    - Collaborative care: CBT, family therapy
    - Continue medications at least 6 months, do not stop medications at times of high stress

Follow Up

1. Return to Office
    - Therapeutic alliance very important, regularly scheduled visits helpful
    - Earlier follow up: medication dose change, triggers, failure of therapy
2. Refer to Specialist
    - Psych consult if patient needing >6mg alprazolam per day
    - Collaborative care improves outcomes
3. Admit to Hospital
    - If associated with acute suicidal or homicidal ideation
    - If inpatient detoxification required for substance use disorder

Prognosis

1. Functional morbidity, disabling, especially when complicated by agoraphobia
2. 50% recover with treatment, 30-50% relapse
3. Chronic cases characterized by remissions and exacerbations

Prevention

1. Consider counseling after initial panic attack to try to reduce the development into panic disorder
2. Identify patients at risk based on hx of abuse and implement CBT early

Patient Education

1. Panic Disorder: Panic Attacks and Agoraphobia at

- http://familydoctor.org/online/famdocen/home/common/mentalhealth/anxiety/137.html

Evidence-Based Inquiry

1. What are the most practical primary care screens for post-traumatic stress disorder?

References

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