Behavioral Therapy and the Challenging Patient

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Disclosures

• Advisory Boards: Alder, Allergan, Depomed, Pernix, Teva

Objectives

• Perform a behavioral assessment
• Discuss how comorbid anxiety is a driver of distress across emotional disorders and in migraine.
• Identify similarities between panic disorder and migraine
• Recognize the role of interoceptive conditioning and anxiety sensitivity in migraine.
• Plan effective psychophysiological, behavioral, and cognitive therapies.
Who are these challenging patients?

- Headache transformation to high frequency
- Refractory to standard therapies with ongoing adherence issues
- Medication misuse/overuse/abuse
- High levels of personal stress
- Psychiatric comorbidity with significant anxiety
- History of trauma and/or childhood maltreatment

Risk Factors for CM/CDH Onset

<table>
<thead>
<tr>
<th>Comorbidities</th>
<th>Exogenous Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Stressful life events</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Head/Neck injury</td>
</tr>
<tr>
<td>Other pain disorders</td>
<td>Caffeine</td>
</tr>
<tr>
<td>Obesity</td>
<td>Treatment-related</td>
</tr>
<tr>
<td>Asthma</td>
<td>Poor treatment efficacy</td>
</tr>
<tr>
<td>Snoring</td>
<td>Medication overuse</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Headache Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attack frequency (headache days)</td>
</tr>
<tr>
<td>Persistent, frequent nausea with migraine</td>
</tr>
<tr>
<td>Allodynia</td>
</tr>
</tbody>
</table>

Multiaxial Assessment

I. Headache diagnosis; frequency, intensity, duration and level of disability
II. Behavioral assessment of adherence to therapy regimens including medication use, overuse, and misuse
III. Factors that chronify and stress-related issues
IV. Comorbid psychiatric disorders

Modification of Lake, 2001
Treatment Adherence Assessment Basics

- Is patient motivated for Rx? Do pros outweigh cons?
- Does patient understand therapy rationale?
- Did patient receive adequate drug or behavioral Rx?
- Has patient adhered to past therapy regimens?
- Did medication overuse problems affect outcome?
- At what point does patient medicate?
- Ask open-ended questions. “How do you decide when to take your medication?”


Poor Acute Care Associated with CM Risk

- AMPP study: N= 5,681 with EM in 2006; 3.1% progressed to CM in 2007
- Only 1.9% of the group with optimal acute treatment efficacy developed CM
- The very poor acute treatment efficacy group had ≥2X increased risk of new onset CM (OR= 2.55) compared to the optimal treatment efficacy group
- Conclusion from AMPP: Inadequate acute treatment efficacy was associated with an increased risk of new onset CM over the course of one year
- The hope is that optimal acute treatment might prevent progression (not yet proven)
- Clinical Management:
  1) Sustained pain-free response
  2) Behavioral approaches
  3) Daily prophylaxis to drive down # of headache days and # of treatment days

Adapted with permission from Tepper, AHS. 2015 Lipton et al. Neurology 2015;84:688-95.

Complex or Complicated MOH

- Diagnosis of co-existent, significant, and complicating medical illnesses.
- Current diagnosis of mood, anxiety, personality, eating or substance abuse disorder.
- Relapse after previous detoxification.
- Daily use of multiple doses of symptomatic meds
- Psycho-social and environmental problems.
- Better outcomes in simple MOH (P<0.05)
- Complicated MOH less likely to follow-up (P<0.05)

Saper J, Da Silva AN, CNS Drugs. 2013 Nov;27(11):867-77;
### Psychiatric Disorders in MOH

<table>
<thead>
<tr>
<th>DSM-IV Dx</th>
<th>Precedes MOH</th>
<th>Follows MOH</th>
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<tbody>
<tr>
<td>First episode of MDD</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>GAD</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Social phobia</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>89%</td>
<td>11%</td>
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</table>

Roldán F et al, Cephalalgia 2005;25:519-522

### Pain and Learning in MOH

- Some patients treat anticipatory anxiety related to stressors that could trigger migraine or physical sensations perceived as migraine “prodromes”
- They may treat fear (cephalagiaphobia) believing that they will preemptively avoid migraine
- Medication reduces their emotional distress and “prevents” the migraine a powerful avoidance learning conditioning process

### Stress-Related Factors

- High levels of daily stress may transform to chronic
- “Let-down” post-stress may be migraine precipitant.
- The effect of stress may be greater in migraine patients with co-morbid depression.
- In victims of trauma and childhood maltreatment, more disabling HA’s and more likely to “transform” from episodic to chronic
- Many patients do not have the coping skills necessary to manage stress or recurrent headache.

Psychiatric Comorbidity

• May complicate differential diagnosis
• Non-adherence with treatment regimens 3 X more likely if suffer from a mood or anxiety disorder
• poorer drug tolerability
• Reduced response to pharm and behavioral Rx’s
• May increase risk of relapse
• Is a risk factor for migraine chronification

Lamoriello et al., 2005; Bajaj M, Lipton RB 2000; Maicki et al., 1985; Mongiardi et al., 2003
Walke & Pudlon, 2002; Scher et al 2003

Brazilian Adult Health Study

Migraine and MDD

Odds ratio

Association Between Migraine and Anxiety:
Community Studies

<table>
<thead>
<tr>
<th>Reference</th>
<th>Panic</th>
<th>GAD</th>
<th>OCD</th>
<th>Phobia</th>
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<tbody>
<tr>
<td>Breslaw (1998)</td>
<td>10.4</td>
<td>4.1</td>
<td>5.0</td>
<td>2.9</td>
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<tr>
<td>migraine with aura</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>migraine w/o aura</td>
<td>3.0</td>
<td>5.5</td>
<td>4.8</td>
<td>1.8</td>
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<tr>
<td>Swartz et al (2000)</td>
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<td>1.3</td>
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<tr>
<td>Breslaw et al (2001)</td>
<td>3.7</td>
<td></td>
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<tr>
<td>Merikangas et al (1993)</td>
<td>3.3</td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McWilliams et al (2004)</td>
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<td>5.3</td>
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<tr>
<td>Saunders et al (2008)</td>
<td>3.6</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Wang et al (2007)</td>
<td>6.6</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Brazilian Adult Health Study</td>
<td>54:516-519</td>
<td></td>
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</table>

Modified from Smitherman, TA et al. Headache 2003;53:23-45
Anxiety Disorders

Symptoms common to most all anxiety disorders:
• Anxiety-related and danger-related cognitions (fear or worry)
• Physical symptoms
• Avoidance behaviors (some are very subtle).
• Overestimate the probability of danger (migraine) and perceive it as more unmanageable and threatening than objective reality. Very sensitive to medication side effects and somatic sensations.


Vulnerability factors in panic disorder that may be relevant to migraine
• Genetics and Temperament (neuroticism, harm avoidance)
• Early developmental experiences leading to a diminished sense of control - history of medical illness, childhood maltreatment
• Interoceptive Awareness  
  - An individuals sensitivity to bodily signals, e.g. heart rate  
  - Anxiety Sensitivity  
  - Tendency to fear benign physical sensations due to beliefs that these sensations will have harmful and possibly catastrophic consequences


Cognitive-Behavioral Model of Panic Disorder

Stress (uncertainty)
Biological Diathesis

Alarm Reaction  
Rapid heart rate, heart palpitations  
Shortness of breath, smothering sensations  
Chest pain or discomfort, numbness or tingling

Increased anxiety and fear
Conditioned Fear of Internal Sensations
Catastrophic misinterpretations of symptoms ("what if I lose control?") DANGER

Hypervigilance to symptoms  
"Oh my God"  
Anticipatory anxiety  
Memory of past attacks

Otto and Pollack 2009
Headache and Psychiatric Comorbidity (multi-axial examples)

<table>
<thead>
<tr>
<th>Axis I</th>
<th>Axis I</th>
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<tbody>
<tr>
<td>Major Depression</td>
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<tr>
<td>Panic Disorder</td>
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<table>
<thead>
<tr>
<th>Axis II</th>
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<tbody>
<tr>
<td>No disorder</td>
<td>No disorder</td>
<td>Borderline personality</td>
</tr>
<tr>
<td>Axis III</td>
<td>Axis III</td>
<td>Axis III</td>
</tr>
<tr>
<td>Episodic migraine</td>
<td>HF Episodic migraine</td>
<td>Chronic migraine</td>
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</table>

Increasing Complexity and Difficulty


Borderline Personality Disorder:
The ultimate in emotional dysregulation

- In primary care, 4X the prevalence than in the general population; BPD are frequent users of general medical care. 10% of all psychiatric outpatients.
- Suicidal gestures, self-injury and unstable relationships most useful for correct diagnosis.
- Suicide risk 20-50 X higher than general population.
- More likely to have more pervasive HA
- PD's affect 26% of inpatients with refractory CM (most BPD).
- More HA-related disability
- Lower probability of responding to standard preventative pharmacological therapy
- More prone to medication overuse


Abuse Issues and Migraine

- Migraine appears to be related to childhood maltreatment.
- Headache in abused is more disabling and more likely to “transform” from episodic to chronic
- Childhood maltreatment was more common in women with migraine and comorbid major depression than in those with migraine alone
- The presence of PTSD may increase disability substantially.

Behavioral Medicine Program

- Time-limited and goal oriented
- Active participation and personal responsibility
- Self-monitoring with headache diary
- Maximize adherence to medications
- Regulate routine activities
- Relaxation / biofeedback to foster self-regulation
- Cognitive strategies to enhance coping
- Diagnose and treat comorbid psychiatric problems

Locus of Control

**Internal**
- Task-specific
- Takes responsibility
- “good historian”
- Action-oriented
- “I have a plan”
- Sets realistic goals

**External**
- Helplessness (“fix me”)
- Fatalistic/ global/blamer
- “suffering” or “hope” without action orientation
- Looking for “magic pill”
- “Yes...but”

Martin, Holroyd, Penzien. The headache-specific locus of control scale. *Headache, 1990*

Transdiagnostic Treatment

- Motivational enhancement for adherence
- Education
- Present-focused nonjudgmental awareness
- Cognitive flexibility
- Reduction of emotional and behavioral avoidance
- Increase tolerance of physical sensations through interoceptive exposure
- Situational exposures

Boswell, JF et al. *Behav Ther* 2013;44:417-431
Biofeedback as Self-Regulation

• Enhances internal locus of control
• Learn a non-specific “low arousal” physiologic response and use as a coping skill
• Encourage generalization to the natural environment
• Integrate into “action plans” to better manage exacerbations of pain or fear
• Non-threatening environment to begin to explore psychological issues

Cognitive-Behavior Therapy

• Provide opportunities to examine negative predictions and danger cognitions.
• Rehearse adaptive cognitive and behavioral responses to the development of a migraine
• Develop “action plans” and increase self-efficacy
• Teach Coping Skills and Mindfulness to Modify Distress

Coping Skills Training

Acute Migraine

• Preparing for a migraine
• The beginning of the headache
• As intensity builds
• Coping with thoughts and feelings at critical moments
• Self-reflection and evaluation
Screening Recommendations

• ALL headache patients should be screened for BOTH depression and anxiety
  • Depression rarely occurs alone
  • Depression and anxiety often missed in clinical practice

• Verbal screening may be sufficient for episodic migraine and in primary care centers
• More in-depth assessment (questionnaires, diagnostic interviews) are indicated for:
  • Chronic migraine, chronic daily headache, and MOH
  • Patients refractory to standard management
  • Patients presenting to specialty headache clinics

Lanteri-Minet et al., 2005; Lowe et al., 2003, 2004; Maizels et al., 2006
Slide adapted from Smitherman, 2010

CBT for Anxiety Disorder: ideas for migraine

• Provide opportunities to examine negative predictions and danger cognitions about internal sensations.
• Exposure treatment requires a gradual limiting of emotional and behavioral avoidance, increased tolerance to physical sensations (interoceptive) as well as external triggers. Provide plan during prodromal signs.
• Cognitive treatment also helps modify danger and vulnerability thoughts to more rational alternatives and modify distress in general. Training in evaluating both the probability and degree of feared outcomes.

Distorted Automatic Thoughts

• Fortunetelling: “I’ll have an attack, I’ll lose control…I’ll faint
• Labeling: “I am crazy…I am sick”
• Overestimate of danger: “There was red wine in that sauce…I’m sure I’ll get a migraine”
• Catastrophizing: “This will be the big one.”
• Mind reading: “People know I’m losing it”
• Underestimate coping skills: “I can’t handle this”

Leahy, et al 2012; Clark DM, Behavior Research and Therapy 1986;24:461-70
Dysfunctional Schemas

- **Vulnerability to harm**: “I am fragile. I get easily so upset. I am helpless managing these headaches.”
- **Biological integrity**: “I’ll become debilitated.”
- **Control**: “I am totally out of control. This uncertainty is unbearable.”
- **Specialness or humiliation**: “How can someone so competent get so many HA’s. Everyone at work is talking about me.”

Dialectical Behavior Therapy

- Mindfulness
- Distress Tolerance
- Emotional Self Regulation
- Interpersonal Effectiveness

Linehan, M. *DBT Skills Training Manual*, Guilford, 2015; Pederson, 2017

Sleep Hygiene may convert chronic to episodic

- Adopt a routine/consistent bedtime.
- Eliminate all non-sleep related activities; no watching TV, reading, or listening to music in bed.
- Employ relaxation strategies to reduce the latency to sleep.
- Consistent time of evening meal a minimum of 4 hours before bedtime & limit fluid intake within 2 hours of bedtime. No night exercise.
- Eliminate/discontinue daytime naps.
- Get out of bed if can’t sleep and go in different room.

Psychological therapy for depression

- Increase activity and exercise level
- Increase pleasurable and rewarding behaviors
- Enhance social relations/interpersonal skills
- Improve self-esteem & self-reward and decrease self-criticism
- Develop problem solving strategies
- Counter distorted automatic thinking

Leaky, Holland & McGinn, 2012; Beck, 1996; Markowitz & Wiesman, 1995

Management of the Borderline Patient

- Don’t forget to treat the headache but avoid iatrogenic harm and set boundaries.
- Treat affective distress, psychiatric disorders with appropriate pharmacotherapy and psychotherapy.
- Help patient develop empathy and self-responsibility.
- Help patient learn self-observation, mindfulness and insight.
- Teach patient distress tolerance and emotional self-regulation.
- Social skills training and interpersonal skills

After Lake, 2007; Linehan M et al Arch Gen Psych 2006;63:757-766; Linehan, 2015

Conclusions for behaviorally managing the challenging patient

- Headache history should include adherence issues, stress-related risk factors, trauma, and psychiatric comorbidities.
- Anxiety confers greater negative impact than depression in migraineurs and predicts long-term migraine persistence.
- Vulnerability factors, such as anxiety sensitivity and interoceptive conditioning in panic disorder may be relevant in managing the complicated migraineur.
- Personality disorders often increase complexity and add to management ‘difficulties.’
- Self-regulation skills, mindfulness, and CBT can increase internal LOC and better manage affective distress.