MANAGEMENT OF VISCERAL PAIN

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52 year old female with abdominal pain

- 5 year history of persistent right sided burning/sharp abdominal pain
- Not clearly related to eating or a bowel movement
- Occurs daily and interferes with her daily activities. She is on disability related to this pain
- She has seen her PCP, another GI, and a pain specialist. She is currently on vicodin daily
- Her bowel habits were normal until she started on vicodin
- "Dr. please help me – you are my last hope…"

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Functional Abdominal Pain Syndrome

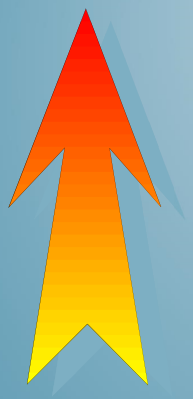
Must include *all* of the following* . .

- Continuous, or nearly continuous, abdominal pain
- No or occasional relationship of pain with physiological events (eg, eating, defecation, or menses)
- Some loss of daily functioning
- The pain is not feigned (eg. malingering)
- Insufficient symptoms to meet criteria for another functional gastrointestinal disorder that would explain the pain

*Criteria fulfilled for the last 3 mos. with symptom onset at least 6 mos. before diagnosis

Clouse, Gastroenterology 2006; 130:1492

CNS Contribution to GI Pain



- Chronic abdominal pain (FAPS)
- Other functional pain disorders
  - IBS
  - Functional dyspepsia
  - Biliary type abdominal pain

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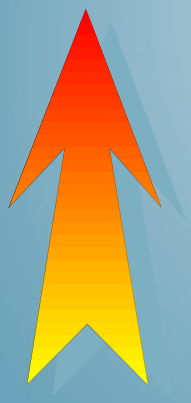
CNS Contribution to GI Pain



- Chronic abdominal pain (FAPS)
- Other functional pain disorders
  - IBS
  - Functional dyspepsia
  - Biliary type abdominal pain
    - Builds to steady level & lasts >30 minutes
    - Not related to BM
    - Not relieved by postural change or PPI
    - May radiate to back or scapula
    - May cause awakening from sleep

Clinical Spectrum: IBS and FAPS

	Mild/Mod IBS	Severe IBS	FAPS
Population Frequency	5-10%	1-5%	≤1%
Abdominal Pain	+/++	++/+++	++/+++
Bowel Dysfunction	+/++	++/+++	0/+
Psychosocial Distress	0/++	++/+++	+++
Somatic Symptoms	0/+	+/+++	++/+++
Health Care Utilization	0/++	++/+++	++/+++
Treatment Method	Bowel>CNS	CNS>Bowel	CNS

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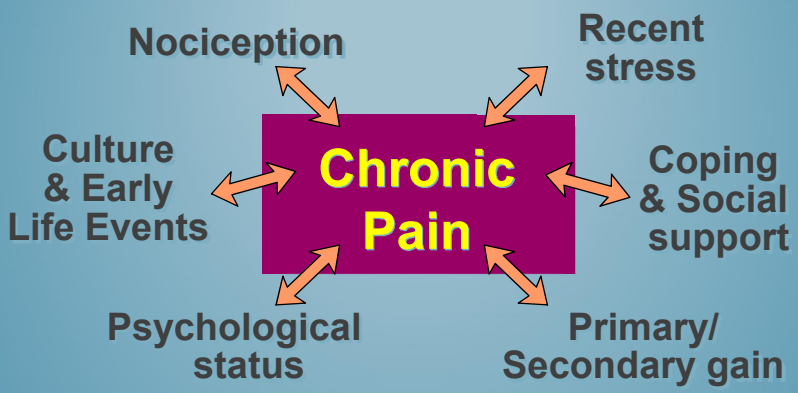
FAPS - Multiple Contributions



PAIN IS MAIN PREDICTOR OF HEALTH OUTCOME IN FGID

- *Increased medical visits*
- *Increased health care utilization*
- *Increased illness severity*
- *More school and work absenteeism*
- *Poorer coping*
- *Poorer health related quality of life*

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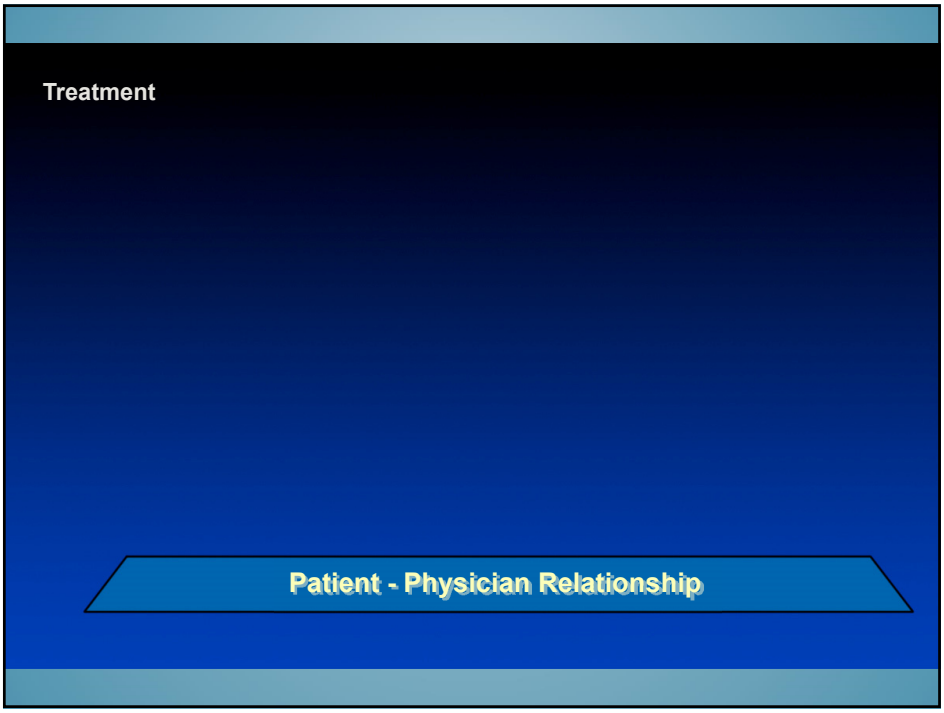
SYMPTOM-RELATED BEHAVIORS OFTEN SEEN IN PATIENTS WITH FAPS

- *Expressing pain through verbal and nonverbal methods*
- *Urgent reporting of intense symptoms*
- *Minimizing or denying a role for psychosocial contributors*
- *Requesting diagnostic studies or even exploratory surgery to validate the condition as "organic"*
- *Focusing attention on complete relief of symptoms rather than adaptation to a chronic disorder*
- *Seeking health care frequently*
- *Taking limited personal responsibility for self-management, while placing high expectations on physician to achieve symptom relief*
- *Making requests for narcotic analgesics*

Clouse, Gastroenterology 2006; 130:1492



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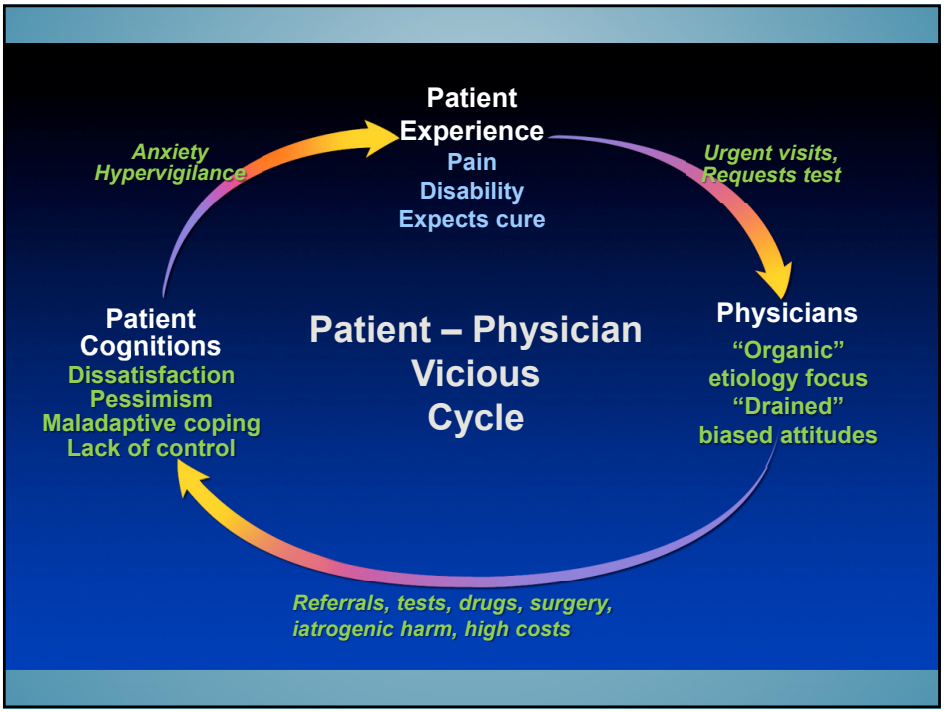

FAPS - Treatment

1. **Accept the pain as real**
   - *Acknowledge the discomfort / distress*
   - *Consider a pain diary to assess:*
     - *Precipitating factors*
     - *Emotional responses*
     - *Cognitions*

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FAPS - Treatment

1. Accept the pain as real
2. Don't just do something . . .Stand there!
   - *Minimize diagnostic studies*
   - *Base decisions on the data . . . not patient requests*

FAPS - Treatment

1. Accept the pain as real
2. Don't just do something . . .Stand there!
3. Set reasonable goals:
   - *Don't expect a cure*
   - *Encourage improved function despite the pain*
   - *Know your limitations*

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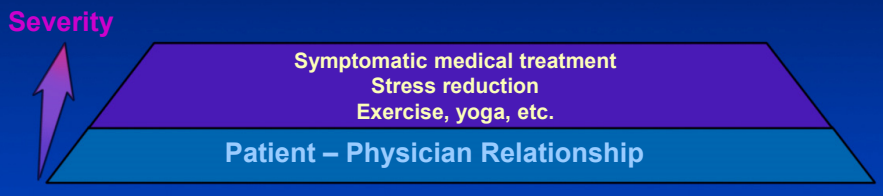
FAPS - Treatment

1. Accept the pain as real
2. Don't just do something . . .Stand there!
3. Set reasonable goals
4. Behavioral techniques:
   - *Increase patient control of symptoms*
   - *Reinforce healthy behaviors*
   - *Support the process, not the product*
   - *Don't act on each symptom*
   - *Time management*

Treatment



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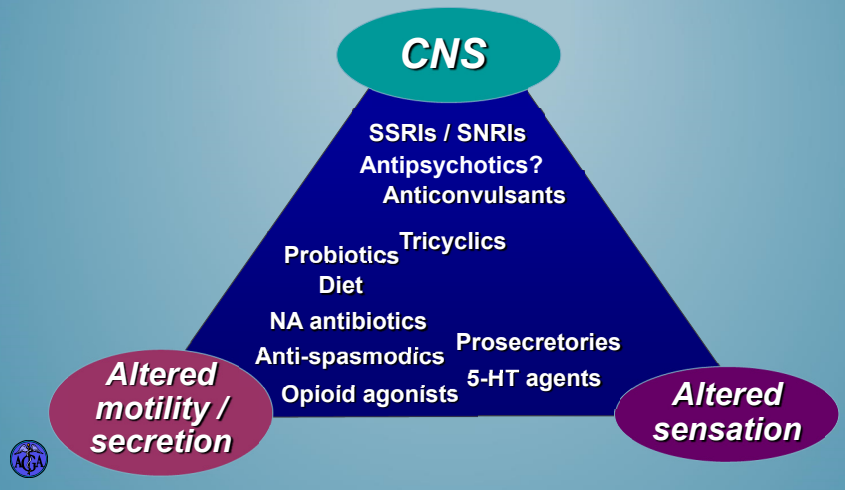
FAPS - Treatment

1. Accept the pain as real
2. Don't just do something . . .Stand there!
3. Set reasonable goals
4. Behavioral techniques
5. Pharmacotherapy:
   - *ASA / NSAIDs not helpful*
   - *Avoid narcotics*
   - *Antidepressants (TCA, SSRI, SNRI)*
   - *Anticonvulsants (gabapentin/pregabalin)?*

FGID – Pain Treatment

Potential Targets & Associated Treatments



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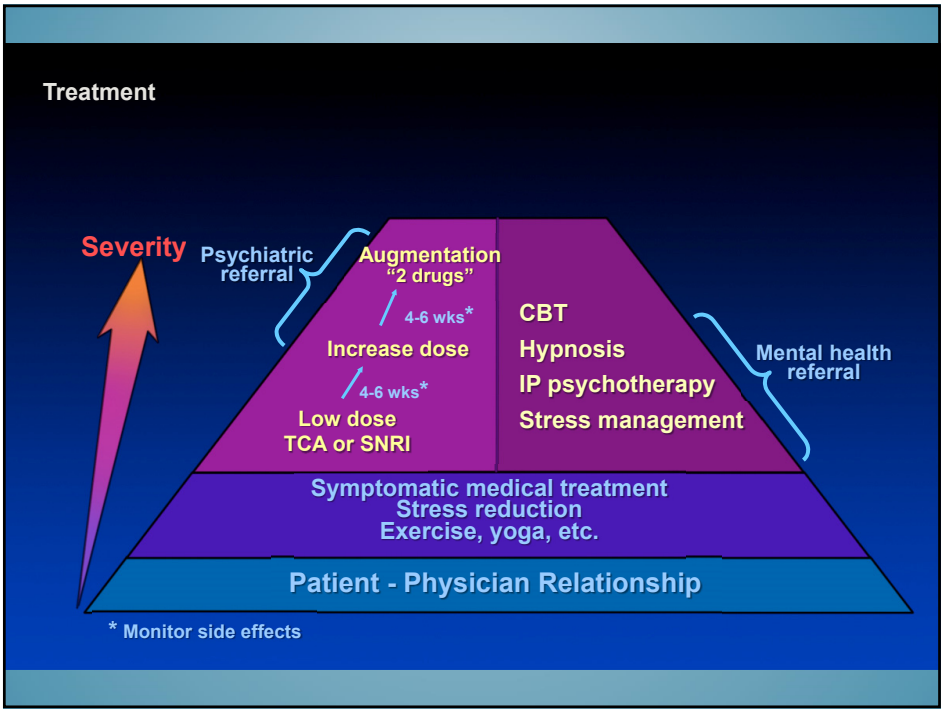

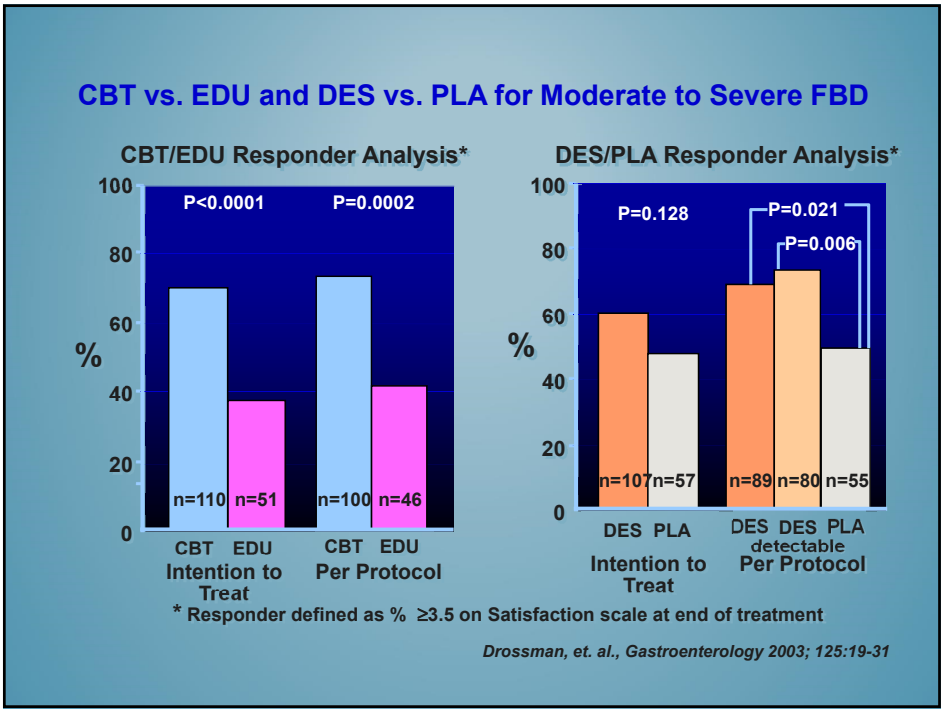

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Antidepressant Receptor Site Effects

	NE	5HT	Histamine	Ach
TCAs (10-150 mg)				
Amitriptyline (3°)	+++	+++	++++	++++
Doxepin (3°)	++	+++	++++	++
Desipramine (2°)	+++	+++	+	+
Nortriptyline (2°)	+++	+	++	++
SSRIs (1-2 pills)				
Citalopram	nil	++++	nil	nil
Escitalopram	nil	++++	nil	nil
Fluoxetine	nil	++++	nil	nil
Paroxetine	nil	++++	nil	+
Sertraline	nil	++++	nil	nil
SNRI's (variable)				
Venlafaxine	++	++	nil	nil
Duloxetine	+++	+++	nil	nil

Antidepressant Treatment

	TCA	SSRI	SNRI
Potential benefits	pain depression	(pain) depression, panic, anxiety, OCD	pain depression
Adverse events	Sedation, Hypotension, Constipation, Dry mouth/eyes, Arrhythmias, Weight gain, Sex dysfunction	Insomnia, Agitation, Diarrhea, Night sweats, Headache Weight loss, Sex dysfunction	Nausea, Agitation, Dizziness, Sleep disturbance, Fatigue Liver dysfunction
Risk of overdose	moderate	minimal	minimal
Dose Adjustment	yes	not usual	varies
Cost / month	$5-50	$20-250	$80-250

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GENERAL APPROACH TO PRESCRIBING ANTIDEPRESSANTS

- *Assess symptoms*
  - *IBS symptoms: pain, diarrhea, etc*
  - *Non-GI symptoms: poor sleep*
  - *Co-morbid conditions: anxiety, depression, fibromyalgia*
- *Leverage side effect profile*
- *Consider cost*
- *Consider previous medication experiences and preferences*
  - *Intolerance to medications or short duration of treatment adherence – benefits may not occur for 4-6 weeks*
  - *May want to start at low doses and gradually increase to lowest, most effective dose*

GENERAL GUIDELINES

- *If patient has IBS and predominant symptom is pain*
  - *Low dose TCA (choice dependent on sleep, bowel habit)*
  - *Consider SSRI or SNRI (Duloxetine)*
- *If patient has predominant psychological symptoms thought to amplify pain*
  - *SSRI (avoid Paroxetine if IBS-C)*
  - *SNRI*
  - *Mirtazepine but can cause weight gain*
  - *Behavioral/psychological treatment*
  - *Can consider combination therapy*
  - *? Antipsychotics (e.g. Seroquel- helps sleep and anxiety?)*

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IBS - Behavioral Treatments

- **Cognitive - behavioral**
  - Uses diaries and exercises to reframe maladaptive thoughts and increase control over symptoms
- **Psychotherapy - Interpersonal**
  - Identify and address difficulties in relationships and emotional conflicts via bowel symptoms
- **Hypnosis**
  - Suggestion used to produce overall relaxation and reduce gut sensations
- **Relaxation training**
  - Uses imagery and relaxation techniques to reduce autonomic arousal and stimulate muscular relaxation

When to Refer for Behavioral Treatment

- *Consider referral for:*
  - *Any level of symptoms*
    - *Daily severe symptoms is a negative predictor of outcome*
  - *Patient recognizes a relation to stress*
  - *Maladaptive coping/catastrophizing*
  - *Motivated to try behavioral therapy*

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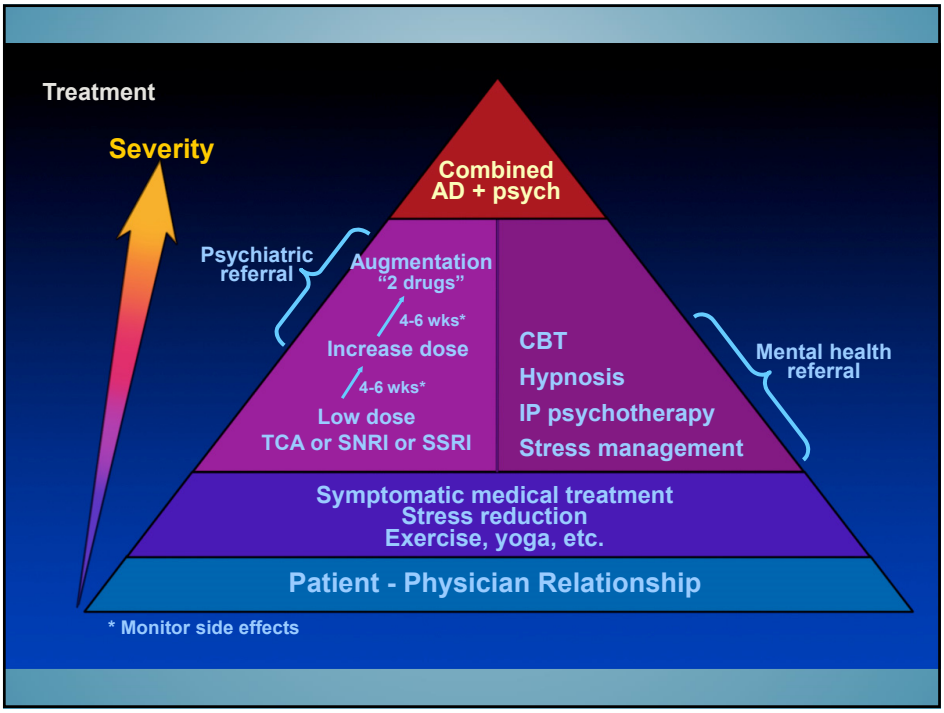
Limitations of Psychological Treatment

- *Requires a motivated, engaged patients*
- *Therapist must be experienced with GI problems*
- *Variable reimbursement from third party payers*
- *Typically requires ongoing medical care – not usually a replacement for the gastroenterologist*



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COMBINING ANTIDEPRESSANTS & BEHAVIORAL TREATMENTS

- *Brain Imaging*
  - *Antidepressants may have central and peripheral effects, acting on limbic/paralimbic regions which modulate pain*
  - *Psychological treatments may have "top down" effects on prefrontal cognitive areas improving "executive" function as well as limbic regions*
- *Clinical trials show combined treatments > monotherapy for headache, depression and other psych disorders*

CONCLUSIONS

- *FAPS is characterized by chronic abdominal pain not associated with physiologic events*
- *Limited scientific evidence concerning pathophysiology and treatment*
- *Treatment management based on therapeutic patient-provider relationship and centrally targeted therapies*
- *Rationale for use of TCAs and SSRIs/SNRIs to treat FAPS*
  - *Central effects: affects cortico-limbic processing of emotional stimuli and may enhance descending pain inhibition*
- *Discourage use of narcotics to avoid addiction and Narcotic Bowel Syndrome (NBS)*

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