Practical Approaches to Chronic Abdominal Pain in Inflammatory Bowel Disease

Reviewed by:

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People with inflammatory bowel disease (IBD) often experience pain that affects daily life and reduces quality of life. Despite treating inflammation, one-third still experience pain even after healing. Many pain medications, like opioids, aren't effective for gut pain or chronic pain. Patients with IBD pain often feel misunderstood and appreciate trusting relationships with doctors who regularly review their pain.

Pathophysiology of Chronic Abdominal Pain in IBD

1. **Visceral and Nervous System:** Noxious stimuli in the intestine activate pain receptors, with chronic inflammation causing hypersensitivity. Mechanoreceptors respond to bowel distention from strictures, adhesions, or gas. This leads to increased nerve excitability in the spinal cord's dorsal horn.

2. **Stress Response:** Pain activates the hypothalamus-pituitary axis, releasing stress hormones (glucocorticoids and catecholamines), which affect emotional responses, pain perception, and gut motility. Stress also alters immune function, contributing to disease flare-ups.

3. **Central Processing:** Pain signals travel to the brain, where IBD can reduce brain gray matter in areas processing pain, increasing sensitivity even during remission.

4. **Psychological Influence:** Emotional stress reduces pain inhibition from the brain to the gut, exacerbating hypersensitivity. Mood disorders, stress, and pain catastrophizing can maintain chronic pain in IBD.

5. **IBS-IBD Overlap:** IBS is common in IBD patients, sharing pathophysiological features like inflammation and microbiota changes. Anxiety and depression in IBD patients also increase IBS symptoms, and treatments for IBD pain may also help manage IBS.

Pharmacological Approaches for Managing Chronic Abdominal Pain in IBD

- **Non-steroidal Anti-inflammatory Drugs (NSAIDs):** NSAIDs can be effective for non-visceral inflammatory pain and musculoskeletal symptoms in IBD. However, they are generally avoided due to concerns about exacerbating disease flares.

- **Antispasmodics:** While no direct studies focus on their use in IBD, antispasmodics are recommended for IBD patients with coexisting IBS. These drugs, including peppermint oil, have shown efficacy in IBS but should be used cautiously in patients with a risk of obstruction due to their anticholinergic effects.

- **Opioids:** Opioids are generally ineffective for chronic IBD pain and may worsen quality of life. Their use is associated with serious side effects, including constipation, addiction, and an increased risk of infection. Chronic opioid use is not recommended for IBD pain management.

- **Atypical Opioids:** Drugs like buprenorphine and naltrexone offer analgesic effects with fewer withdrawal symptoms and side effects compared to traditional opioids.
- **Antidepressant Medications (ADMs):** ADMs, such as tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), and selective norepinephrine reuptake inhibitors (SNRIs), are used to manage pain by modulating gut-brain signals. TCAs, particularly at low doses, have shown efficacy for abdominal pain, while SSRIs and SNRIs provide limited benefit. Side effects such as sedation and gastrointestinal issues should be considered.
- **Gabapentinoids:** Gabapentin and pregabalin, known for their anticonvulsant and analgesic effects, may help manage chronic visceral pain. Evidence in IBD is limited, but benefits have been observed in conditions like IBS and chronic pancreatitis.
- **Cannabinoids:** Cannabis use for IBD-related pain has shown promise in observational studies, with many patients reporting relief from abdominal pain. However, the evidence is not conclusive, and medical cannabis is not approved for IBD.

Psychological Approaches

- Behavioral therapies, particularly cognitive behavioral therapy (CBT) and relaxation techniques show promise for managing IBD-related pain.
- Studies suggest improvements in pain, coping mechanisms, and quality of life, though further research is needed.
- Mindfulness and hypnotherapy show limited benefits for pain control, with mixed results in IBD, though quality of life improvements were observed.

Diet and Lifestyle Approaches

The low-FODMAP (fermentable oligosaccharides, disaccharides, monosaccharides, and polyols) diet is effective for managing abdominal pain in both IBS and quiescent IBD. However, it can be restrictive and may affect gut health, so it should be followed under dietetic supervision.

A gluten-free diet shows mixed results in IBD, and moderate exercise can enhance overall well-being and GI symptoms, though its impact on pain in IBD remains unclear.

Conclusion

Treating chronic abdominal pain in IBD requires a combination of different methods, including medications, therapy, and lifestyle changes. While traditional treatments like NSAIDs and opioids may have limitations, alternatives such as antispasmodics, antidepressants, and gabapentinoids show promise. Psychological strategies like cognitive behavioral therapy and dietary modifications, such as the low-FODMAP diet, can also help manage symptoms. A comprehensive approach tailored to individual needs and a personalized treatment plan is important for improving pain and quality of life in IBD patients.

Reference

Baillie S, Norton C, Saxena S, Pollok R. Chronic abdominal pain in inflammatory bowel disease: a practical guide. *Frontline Gastroenterol.* 2023;15(2):144-153. Published 2023 Oct 11.