Emerging Medical Therapies for the Irritable Bowel Syndrome

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Disclosure

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ABSTRACT

The Irritable Bowel Syndrome (IBS) is a prevalent symptom-based disorder defined by the presence of abdominal pain and altered bowel habits. Clinical phenotypes of IBS are quite diverse with some patients reporting constipation (IBS-C), others diarrhea (IBS-D) and the balance, a mixture of both. Similarly, the pathogenesis of IBS is diverse. IBS is not a single disease entity but rather, likely comprised of a number of different disease states. This fact has important implications for the choices and efficacy of treatments for IBS.

Traditional therapies such as fiber, anti-diarrheals, laxatives and anti-spasmodicsprovide limited benefit to the breadth of symptoms experienced byIBS patients. Recent drug development has attempted toleverage our increasing understanding of the pathogenesis of IBS and in so doing, more comprehensively address the full spectrum of IBS symptoms. Drugs such as alosetron, ramosetron, tegaserod, and lubiprostone represent the initial attempts of such efforts.

Promising drugs in development for IBS-C include other 5-HT4 receptor agonists like prucalopride, guanylatecyclase C agonists includinglinaclotide and plecanatide, and drugs which affect colonic bile acid concentrations such as A3309. For patients with IBS-D, drugs and supplements which alter the gut microbiome and immune function such as the nonabsorbable antibiotic rifaximin or various probiotics have been evaluated. Drugswhich act on targets along the brain-gut axis such as the κ-opioid receptor agonist asimadoline,CRF-1R antagonists, the 2,3-benzodiazepine modulator dextifisopam, or the TPH-1 inhibitor LX1031 are in various stages

of development. More peripherally acting drugs such as the carbon based adsorbent AST100 or drugs which inhibit intestinal chloride secretion such as crofelemer have also been studied.