Abstract

Irritable bowel syndrome (IBS) is a spectrum of disorders characterized by abdominal discomfort and pain, associated with altered bowel habits. Though gut motility, secretion and sensation may be altered in patients with IBS, the pathophysiology of this condition remains to be fully understood. The endocannabinoid system is involved in the regulation of numerous gastrointestinal functions including motility, sensation and secretion under both physiological and pathophysiological conditions. Activation of cannabinoid (CB)(1) and CB(2) receptors under various circumstances reduces motility, limits secretion and decreases hypersensitivity in the gut. Drugs that alter the levels of endocannabinoids in the gut also reduce motility and attenuate inflammation. In this review, we discuss the role of the endocannabinoid system in gastrointestinal physiology. We go on to consider the involvement of the endocannabinoid system in the context of symptoms associated with IBS and a possible role of this system in the pathophysiology and treatment of IBS.