

MOTILITY

IL-1 β and TNF elevated in women with IBS and extraintestinal comorbidities

Plasma levels of the proinflammatory cytokines interleukin (IL)-1 β and tumor necrosis factor (TNF) are increased in female IBS patients who also have fibromyalgia, premenstrual dysmorphic disorder or chronic fatigue syndrome (CFS), compared with their levels in female IBS patients who don't have extraintestinal comorbidities.

"Extraintestinal comorbidities are common in patients with IBS, but their etiology is poorly understood," explains Eammon Quigley of University College Cork, Ireland. "[We] hypothesized that cytokine patterns or levels in the circulation might account for symptom severity and/or the presence of comorbidity [in patients with IBS]."

In addition to having elevated plasma levels of IL-6 and IL-8 (previously shown by the researchers to be elevated in patients with IBS), IBS patients who also had an extraintestinal comorbidity had increased levels of IL-1 β and TNF.

No association was found between the cytokine profile and the number and/or nature of the extraintestinal comorbidities.

However, "[the] nature of cytokine profile in plasma may determine the nature of a given patient's symptomatology ... and these plasma assays may serve as a biomarker for IBS and subsets of IBS," says Quigley.

Quigley and colleagues believe that their findings support the role of a low-grade immune activation or inflammation in IBS and that they could pave the way for new therapeutic (that is, anti-inflammatory) options for IBS. The researchers now plan to better define the relationship between symptoms and cytokine changes.

Natalie J. Wood

Original article Scully, P. *et al.* Plasma cytokine profiles in females with irritable bowel syndrome and extra-intestinal co-morbidity. *Am. J. Gastroenterol.* **105**, 2235-2243 (2010)