



IRRITABLE BOWEL SYNDROME – IBS

Irritable bowel syndrome 2009 — global recognition, new ideas

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Irritable bowel syndrome (IBS) has long been recognized as an important and challenging disorder for the gastroenterologist in western Europe and North America. Recent studies from Asia and other regions have raised the possibility that IBS may be prevalent elsewhere. For this reason, WGO chose IBS as its focus for World Digestive Health Day (WDHD) 2009 – a choice that proved most propitious, as the topic generated a great deal of interest in the lay press and media, as well as among gastroenterologists and health-care professionals in general. WDHD became WDH Year, such was the interest generated by IBS!

A central part of the WGO's contribution to this exploration of IBS was the creation of a multinational task force on global aspects of IBS. The task force met immediately before Digestive Disease Week at the end of May and shared comments on a draft paper electronically thereafter, with the process culminating in the formal presentation of the proceedings of their deliberations at Gastro 2009 in London. This presentation took place in the context of a WGO satellite symposium on IBS, which set out to explore not only global aspects of IBS, but also new ideas in the pathophysiology of IBS. What did the audience learn?

It is abundantly clear that IBS is indeed common worldwide, with reasonably similar prevalence rates being reported from nations in Europe, the Americas, Asia, and Africa. While the global map of IBS is far from complete and many aspects of its epidemiology need to be investigated further in many

parts of the world, some interesting trends are beginning to emerge. Most interesting – and most surprising to a Western audience – is the finding that there are striking differences in the prevalence of IBS among males and females in other parts of the world. In India and China, for example, IBS is not a predominantly female disorder, but is as common among males or, in some surveys, even more common in males. IBS in Asia may also feature somewhat different symptoms at presentation. Although current research is merely scratching the surface of this fascinating area, it is abundantly clear that research into similarities and differences between IBS in different parts of the world has the potential to advance the understanding of IBS for all.

One issue that deserves special attention is the role of pathogens in the initiation of IBS – postinfectious IBS (PI-IBS). PI-IBS has been well described among victims of large outbreaks of food poisoning or enteric infection in Europe, North America, and China, prompting an examination of relationships between the enteric microbiota, the host immune response, and the development of IBS symptoms. While these interactions are most obvious in the case of PI-IBS, several research centers are currently exploring these phenomena in IBS in general. At the Gastro 2009 symposium, two acknowledged leaders in IBS research, Dr. Francisco Guarner from Barcelona and Dr. Giovanni Barbara from Bologna, addressed the potential roles of the microbiota and immune response in IBS. Dr. Guarner brought us up to date with modern approaches to the full description of the normal

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microbiota and how these very same techniques are beginning to provide, at the very least, hints that the microbiota may be disturbed in IBS. The precise nature of this disturbance, the species and strains involved, and the primacy of these disturbances remain to be fully defined.

In terms of the immune response, evidence is accumulating at a rapid pace to indicate that there is something amiss in the immune response both in the systemic and mucosal compartments in individuals with IBS. Dr. Barbara and his colleagues have demonstrated, in a series of elegant studies, the central importance of mast cells in the host response in IBS and have shown, not only increased activation of mast cells in, IBS but also the release from these mast cells of proteases and other substances that are capable of activating neural pathways relevant to the pathogenesis of pain and reflex responses in IBS. Others have been able to detect raised levels of proinflammatory cytokines in the peripheral circulation in IBS; the question here, as with changes in the microbiota, is whether such alterations are of fundamental importance or represent secondary phenomena. These studies have opened up totally new avenues in IBS research and offer the potential for the development of new therapeutic approaches to IBS.

The bottom line: IBS is a global issue, and its roots may, after all, lie in the gut and in interactions between the microbiota and the immune system.

FURTHER READING

1. Quigley EMM, Fried M, Gwee KA, Olano C, Guarner F, Khalif I, et al. *Irritable bowel syndrome: a global perspective*. Munich: World Gastroenterology Organization, 2009. (WGO Global Guidelines.)
2. Buhner S, Li Q, Vignali S, Barbara G, De Giorgio R, Stanghellini V, et al. *Activation of human enteric neurons by supernatants of colonic biopsy specimens from patients with irritable bowel syndrome*. *Gastroenterology* 2009;137:1425–34 (PMID 19596012).
3. Barbara G, Stanghellini V. Biomarkers in IBS: when will they replace symptoms for diagnosis and management? *Gut* 2009;58:1571–5 (PMID 19923339).
4. Guarner F. Hygiene, microbial diversity and immune regulation. *Curr Opin Gastroenterol* 2007;23:667–72 (PMID 17906445).
5. Guarner F. Enteric flora in health and disease. *Digestion* 2006;73 Suppl 1:5–12 (PMID 16498248).

ABOUT CDHF

Over 20 million Canadians suffer from digestive disorders every year. The Canadian Digestive Health Foundation (CDHF) believes this is unnecessary and unacceptable.

As the Foundation of the Canadian Association of Gastroenterology, we work directly with leading physicians, scientists, and other health care professionals to help you understand and take control of your digestive health with confidence and optimism.

Through research and public education, we aim to:



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