DR THOMAS CASPRITZ, FRACP

Gastroenterologist and Physician, Endoscopist (NZ CCRTGE accredited) TIMARU GASTROENTEROLOGY & ENDOSCOPY www.timarugastro.com

Aorangi Surgical Group 43 York Street, PO Box 100, Timaru

Information about Small Intestinal Bacterial Overgrowth (SIBO, SBBO)

Small intestinal bacterial overgrowth (SIBO), defined as **excessive bacteria in the small intestine**, remains a somewhat poorly understood and defined disease. Initially thought to occur in only a small number of patients, this disorder may be more prevalent than previously thought.

Patients with SIBO vary in presentation. Symptoms of SIBO can be nonspecific and include bloating, abdominal distension, abdominal pain or discomfort, diarrhea, fatigue, and weakness.

Risk Factors for the Development of Small Intestinal Bacterial Overgrowth include among others structural abnormalities (e.g. previous bowel surgery), motility disorders like gastroparesis (poor or abnormal movement of stomach or bowel), coeliac disease, irritable bowel syndrome (IBS), certain medications (e.g. recurrent antibiotics and gastric acid suppression, PPI).

The diagnosis of SIBO often starts with a clinical suspicion. **There are multiple modalities available for SIBO testing, though all are subject to important limitations.** Breath tests aid in the diagnosis, and are now widely used as an alternative to direct aspiration and bacterial culture from the small bowel, because they are noninvasive and less expensive. Noninvasive breath tests have been shown to have a sensitivity of 60–90% and specificity of 85%. The glucose hydrogen breath test is more acceptable for the diagnosis of SIBO as the conventionally accepted "double-peak criterion" on lactulose hydrogen breath test is very insensitive and recently described early-peak criterion is often false positive.

Hydrogen breath testing is available via Timaru Gastroenterology, and can be done here in Timaru.

Treatment for SIBO is complex and must be individualized. The three main components in treating patients are

- 1. Treat the underlying disease or condition.
- 2. Eradicate bacterial overgrowth
- 3. Address associated nutritional deficiencies.

Many patients require treatment with antibiotics, options include ciprofloxacin, norfloxacin, amoxicillin/clavulanate, metronidazole, cephalexin and rifaximin. Rifaximin has gained popularity since it is nonabsorbed, has few side effects and little evidence for resistance, it may therefore be the antibiotic of choice for SIBO. Rifaximin is listed and available in NZ, but it is not funded for SIBO.

A variety of alternative management options for SIBO have been proposed from within and beyond the medical community. Among patients alternative interventions may be seen as attractive options despite a relative lack of supporting data. Given the frequent link between food intake and symptom exacerbation, nutrition can be an avenue of native interest for patients with SIBO, and multiple "SIBO diets" can be found on google, though again the available evidence for any individual dietary strategy is limited.

Telephone: 03 6884447

Fax: 03 684 8455

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