

BACTERIOTHERAPY FOR CHRONIC FATIGUE SYNDROME A LONG TERM FOLLOW-UP STUDY

Dr Tom Borody, M.D., FRACP

Gastroenterologist

Centre for Digestive Diseases

144 Great Northern Road, Five Dock NSW 2046

Phone (02) 713-4011. Int'l Fax 61 2 712 1675

We have previously demonstrated that chronic constipation can be manipulated by antibiotics(1) and bowel flora change, (2). Since some of these patients treated by bacteriotherapy experienced a marked reduction in their fatigue levels we postulated that bacterial infection of enteric flora could result in chronic fatigue syndrome (CFS) via elaboration of bacterial toxins. In this study we examined the effects of bacteriotherapy on CFS in a sub-group of patients with constipation-predominant irritable bowel syndrome (IBS) and coexisting CFS.

Aim: To study the long term effects of bowel flora replacement in patients with CFS.

Methods: Consecutive patients with CFS were entered into trial. A liquid culture comprising 20 non-pathogenic enteric anaerobes/aerobes, including several of the Bacteroides species, E coli and Lactobacillus species, was made up to 300cc. Before infusion of the culture, patients underwent a 3 day antibiotic course (neomycin sulfate, metronidazole, nystatin and bismuth subcitrate) and bowel lavage preparation (PEG) while on a low fibre diet. On the 4th day bacterial cultures were infused via colonoscope into caecum(under CO cover), followed the next day by a 2nd infusion via enema. Patient follow-up was carried out via telephone at 11-28 months (17.6 = .13) after the procedures.

Results: Symptoms scores, out of ten (visual analogue scale), were recorded at 2 weeks after treatment and at telephone follow-up (average 17.6 months after initial procedure). A total of 34 patients out of 55 were available for the telephone follow-up. 14/34 patients (41.2%) obtained persisting relief(score>5 early and late) from their CFS as well as bowel symptoms (fatigue, myalgia, constipation, bloating, pain, nausea). With initial score of 4.82 at two weeks falling to 3.32 at the second interview. 35% showed little or late improvement in their CFS symptoms. The remaining patients (n=8) recorded minor grades in improvements. Hence, the majority of those who responded to bacteriotherapy experienced long term improvement in their fatigue symptoms. In non-responders, intestinal symptoms nevertheless generally improved.

Conclusions:

1. Reversal of CFS can be achieved following manipulation of the bowel flora in a proportion of patients with long term improvement achieved in around 40%.
2. These serendipitous observations suggest that an abnormal enteric bacterial flora may hold the clue to the aetiology of CFS in some patients.
3. Since bacteriotherapy can improve intestinal symptoms without improving fatigue suggests differing aetiology in other patients.