

Heiser, C.R., Ernst, J.A., Barrett, J.T., French, N., Schutz, M., & Dube, M., (2004). Probiotics, Soluble Fiber, and L-Glutamine (GLN) Reduce Nelfinavir (NFV)-or Lopinavir/Ritonavir (LPV/r)-related Diarrhea. Journal of the International Association of Physicians in AIDS Care, 3 (4), 121-129.

Abstract

Purpose: Highly active antiretroviral therapy (HAART) can be associated with diarrhea and other gastrointestinal (GI) side effects. Reducing these side effects may improve treatment durability and quality of life (QOL). This study assessed the impact of nutritional co-therapies known to reduce diarrhea in HIV-positive men treated with nelfinavir (NFV)- or lopinavir/ritonavir (LPV/r)-containing regimens. **Methods:** Thirty-five HIV-positive men treated with NFV ($n = 27$) or LPV/r ($n = 8$) with diarrhea (\geq two liquid stools/day [d]) participated in a 12-week prospective study. Twenty-eight subjects were randomly assigned supplements (S), seven received standard of care (C). Group S received probiotics (1.2g/d) and soluble fiber (11g/d). If diarrhea persisted at week 4, 30g/d L-Glutamine (GLN) was added. Diarrhea incidence, as well as supplement and antidiarrheal use, was assessed monthly. **Results:** Weight, CD4 count, and HIV RNA were unchanged in both groups. Diarrhea completely resolved in 10 of 28 (36 percent) S subjects. The mean (\pm SD) number of stools/d declined [3.40 ± 1.25 to 2.54 ± 1.34 ($p < 0.01$)]. Diarrhea (loose, watery stools/d) lessened in S from 2.84 ± 1.42 to 0.74 ± 1.03 ($p < 0.0001$). Fifteen S subjects did not obtain full relief with probiotics and fiber, but stools/d decreased from 4.08 ± 1.35 to 3.06 ± 1.68 ($p < 0.05$) after starting GLN. In C, stools/d, 4.14 ± 4.86 to 3.44 ± 1.68 ($p = 0.678$) and incidence of diarrhea/d, 3.00 ± 4.82 to 1.36 ± 1.29 ($p = 0.361$) was unchanged. In S, loperamide use decreased from 1.69 ± 2.34 to 0.31 ± 0.69 mg/d ($p < 0.01$); 18 versus eight subjects used loperamide at 0 and 12 weeks, respectively. **Conclusion:** Probiotics, soluble fiber, and GLN significantly reduced diarrhea for subjects receiving NFV or LPV/r. Nutritional co-therapies show clinical benefit in HIV-positive men with diarrhea.