

Engelbrekton, A.L., Korzenik, J.R., Sanders, M.E., Clement, B.G., Leyer, G., Klaenhammer, T.R., & Kitts, C.L., (2006). Analysis of treatment effects on the microbial ecology of the human intestine. FEMS Immunology and Medical Microbiology, 57, 239-250.

Abstract

A large number of studies have investigated gastrointestinal microbiota and changes in the gastrointestinal community. However, a concern in these studies is how best to assess changes in gastrointestinal community structure. This paper presents two different human trials where the fecal terminal restriction fragment length polymorphism data sets were analyzed to search for treatment effects. Principle components analysis and cluster analysis based on grouped data are compared with analysis of data by subject using distance coefficients. Comparison with baseline within an individual before grouping by treatment provided a clearer indication of treatment effects than did an evaluation of data grouped before analysis. In addition, a large within-subject sample size and multiple baseline samples are necessary to accurately analyze treatment effects.