
Abstract
This study was undertaken to elucidate whether eating a fermented milk containing Lactobacillus acidophilus La1 and bifidobacteria could induce changes in intestinal flora and modulate the immune response in man. Volunteers consumed a fermented milk containing L. acidophilus La1 and bifidobacteria over a period of three weeks during which an attenuated Salmonella typhi Ty21a was administered to mimic an enteropathogenic infection. A control group ate no fermented foods but received the S. typhi Ty21a. Faecal flora analyses showed an increase in L. acidophilus and bifidobacterial counts during fermented milk intake. The specific serum IgA titre rise to S. typhi Ty21a in the test group was > 4-fold and significantly higher (P = 0.04) than in the control group. An increase in total serum IgA was also observed. These results indicate that lactic acid bacteria which can persist in the gastrointestinal tract can act as adjuvants to the humoral immune response.