

## **Green Banana Reduces Clinical Severity of Childhood Shigellosis: A Double-Blind, Randomized, Controlled Clinical Trial.**

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**BACKGROUND AND AIMS::** Mature green banana (GB) fruit is rich in amylase-resistant starch that stimulates colonic production of short-chain fatty acids (referred to as fatty acid) and is useful in treating diarrheal diseases. We studied therapeutic effects of GB in childhood shigellosis by determining colonic fatty acid production in a double-blind, randomized, controlled, clinical trial.

**METHODS::** Seventy-three children aged 6 to 60 months with severe bloody dysentery caused by *Shigella* infection were either given a rice-based diet (54 kcal/dL), with cooked GB (250 g/L) (n = 34) or without GB (n = 39) for 5 days; all given ciprofloxacin (15 mg/kg, q12 hours). Stool volume, frequency, excretion of blood/mucus, and relevant clinical and laboratory indices were determined.

**RESULTS::** On day 5 (post-treatment), 59% children in GB group had no mucus compared with 36% in controls, fecal blood was completely cleared from 96% in GB group compared with 60% without GB ( $P < 0.05$ ). GB treatment significantly reduced ( $P < 0.01$ ) numbers of stools/day compared with controls (70% vs. 50%,  $P < 0.05$ ). GB-specific reductions of mean fecal volumes (mL/kg) ranged from 25% to 40%; ( $P < 0.05$ ) during the 5-day observations. Clinical success rates were 85% in GB group compared with 67% in controls ( $P < 0.05$ ). GB significantly ( $P < 0.01$ ) reduced fecal myeloperoxidase activity and increased fecal fatty acid concentrations ( $P < 0.01$ ).

**CONCLUSIONS::** GB diet improves clinical severity in childhood shigellosis and could be a simple and useful adjunct for dietary management of this illness.

PMID: 19319017