Abstract


A double-blind, randomized, controlled crossover trial of glutamine supplementation in home parenteral nutrition.

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OBJECTIVE: Studies suggest clinical benefit of glutamine-supplemented parenteral nutrition. The aim was to determine if the inclusion of 10 g of glutamine as part of the nitrogen source of home parenteral nutrition (HPN) reduces infectious complications.

SUBJECTS/METHODS: Thirty-five patients on HPN were recruited and 22 completed the study. Patients were randomized to receive either standard HPN or glutamine-supplemented HPN. Patients were assessed at randomization, 3 and 6 months later then they were crossed over to the alternative HPN and reassessed at 3 and 6 months. Assessments included plasma amino acid concentrations, intestinal permeability and absorption, nutritional status, oral and parenteral intake, quality of life, routine biochemistry and haematology.

RESULTS: No difference was seen between the groups at randomization. No difference was detected between the treatment phases for infective complications (55% in the standard treatment phase and 36% in the glutamine-supplemented phase P=0.67). There were no differences in nutritional status, intestinal permeability, plasma glutamine concentrations or quality of life.

CONCLUSION: Although limited by the sample size, the study has shown that glutamine as part of the nitrogen source of parenteral nutrition can be given to patients on HPN for 6 months without any adverse effects.

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