All patients were fed enterally using bolus feedings run in by gravity, which certainly raises the issue of gastroesophageal reflux and early aspiration. Although the head of the bed was elevated to 30 degrees in most patients most contemporary units use a continuous infusion of feeding or advance the tube into the duodenum or proximal small intestine. 5. Peter J, Moran J, Phillips-Hughes J. A meta-analysis of treatment outcomes of early enteral versus early parenteral nutrition in hospitalized patients. Crit Care Med, 2005;33:213-220. 6. Tinckler L. Surgery and intestinal motility.

This prospective randomized controlled clinical trial compares the effects of early parenteral nutrition (TPN) or standard enteral nutrition (SEN). Clinical and nutritional data were collected on all patients until death or for 18 days of hospitalization. Survival and functional recovery were monitored in 38 head-injured patients randomly assigned to receive TPN or SEN. Demographically, the two groups were similar on admission. There was no significant difference in the severity of head injury between the two groups as measured by the Glasgow Coma Scale (p = 0.52). The outcome for the two groups was quite different, with eight of the 18 SEN patients dying within 18 days of injury, whereas no patient in the TPN group died within this period (p < 0.0001).

The basis for the improved survival in the TPN patients appears to be improved nutrition. The TPN patients had a more positive nitrogen balance (p < 0.06), and a higher serum albumin level and total lymphocyte count. More adequate nutritional status may have improved the patients' immunocompetence, resulting in decreased susceptibility to sepsis. The data from this study strongly support the favorable effect of early TPN on survival from head injury.