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The feasibility of enteral nutrition delivery via a needle catheter jejunostomy in patients undergoing major resection for upper gastrointestinal malignancy

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Traditional management of patients post-operatively involved a period of nil by mouth. Over the past decade the use of enteral nutrition post-operatively via a feeding jejunostomy has gained popularity. The use of feeding jejunostomy has been associated with increased risk of complications[1,2]; i.e. abdominal pain, distension, nausea and vomiting. In some cases fatal complications have been reported[3–6].

Several factors have been suggested as responsible for these complications, including initial volume and rate of enteral nutrition (EN), rate of increase of EN, type of tube used and method of insertion. It appears from the literature that 'aggressive' feeding is not advocated[3–6].

The aim of the present study was to determine the tolerance and feasibility of EN delivered in the first post-operative week in patients who had undergone major upper gastrointestinal surgery for malignancy. The study duration was 36 months and formed part of a larger randomised controlled trial. All patients received a jejunostomy (Freka surgical jejunostomy set; Frenius Kabi Ltd, Runcorn, Cheshire, UK) inserted by one of four surgeons at laparotomy. Fifty-five patients were analysed in the study.

Length of hospital stay (d)	17.6 (SD 8.2)
Catheter-related complications: minor	*n* 5 (8.3%)
Catheter-related complications: major	0
Patients who had uninterrupted feeding in the first post-operative week	*n* 46 (84%)
Mean rate of initiation of enteral feeding (ml/h)	17 (SD 9.06)
Mean period (h) post-operation that enteral feeding was commenced	12.3 (SD 6.2)
Maximum nutritional requirements achieved in the first week post operation (%)	71
Patients requiring home enteral feeding	*n* 1 (1.8%)
Incidence of nausea	*n* 15 (27.3%)
Incidence of vomiting	*n* 8 (14.5%)
Incidence of abdominal distension	*n* 6 (11.1%)
Patients who had their bowels opened in the first post-operative week	*n* 32 (59.3%)
Incidence of diarrhoea in the first post-operative week	*n* 6 (11%)

Nine patients (16.3%) had their enteral feeding stopped in the first post-operative week; the reasons included chylothorax, possible chest infection, pain and oozing laparotomy wound. All patients were restarted on early EN within 36 h of stopping. The results from the present study illustrate that EN is essentially well tolerated in this patient group. Thus, these results should support the use of routine EN in patients undergoing major upper gastrointestinal resection.

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