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Feeding jejunostomy in post-gastrectomy nutrition management for gastric cancer

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Abstract

Patients undergoing gastric resection for stomach cancer are at an increased risk of malnutrition. Early postoperative enteral feeding significantly improves nutritional status and reduces morbidity. The use of a feeding jejunostomy in a selected group of these patients does improve the outcome.

Key Words: Gastric resection; Enteral feeding; Malnutrition; Morbidity; Outcome

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Core Tip: Early postoperative enteral feeding in patients undergoing gastrectomy for malignancy is an essential element of the enhanced recovery after surgery protocol and does improve the outcome of these patients. Feeding jejunostomy is one of the well established methods of doing so.

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TO THE EDITOR

Gastric cancer is among the most prevalent and lethal cancers globally, particularly affecting the elderly population. It is the fifth most common cancer and the fourth leading cause of cancer-related deaths worldwide[1]. The standard treatment for patients with resectable gastric cancer is gastrectomy combined with perioperative chemotherapy[2]. Weight loss resulting from malnutrition is the most significant factor

associated with gastric cancer. After gastrectomy, inadequate nutrition results in increased morbidity and delays recovery in these patients. Malnutrition following surgery, especially total gastrectomy, is a serious complication, resulting in a higher risk of postoperative complications and increased patient morbidity[3]. As these patients need adjuvant chemotherapy and radiotherapy, it is essential to maintain adequate nutrition as malnutrition is associated with complications and intolerance to adjuvant treatment. The European Society for Clinical Nutrition and Metabolism (commonly known as ESPEN) Guidelines advocate supplementary enteral feeding for patients experiencing significant malnutrition at the time of surgery (defined as > 10% weight loss in the last 6 months) or for those whose oral intake is expected to be < 60% for more than 10 days following surgery[4]. In the era of the Enhanced Recovery After Surgery protocol for upper gastrointestinal surgery, early gut feeding is the preferred option for the better clinical outcome of the patient[5]. Feeding can be started from the oral route, through a nasojejunal tube or by feeding jejunostomy. Starting oral intake following major surgical resection does not conform to routine practice easily for every patient and it may not provide adequate nutrition for every patient in the early postoperative days which can be accompanied by decreased appetite, early satiety, and nausea.

Nasojejunal tube feeding is also a good option for starting early enteral feeding, but the main issue is the patient tolerability especially if required for a long period of time; it also harbours risk of various related complications, like accidental removal of the tube, irritation of the nasal area and throat, and development of nasal skin ulceration. Nasojejunal feeding is favoured for short-term use, especially for patients who have undergone subtotal or distal gastrectomy. Unfortunately, it is associated with more pulmonary complications and should be avoided in patients with pulmonary co-morbidities and patients with sleep disorders.

Busch introduced feeding jejunostomy in 1985 and since then it has been adopted widely as an effective method of nutritional support. In patients undergoing resections for upper gastrointestinal malignancy, the role of feeding jejunostomy has been well recognized as a method of enteral feeding that ensures adequate nutrition[6]. Oesophagectomy is the most common surgery where surgeons place feeding jejunostomy for enteral feeding. Not every case of gastric resection requires a feeding jejunostomy. It is beneficial in patients who have advanced disease, low nutritional status, have received neoadjuvant chemotherapy, and who have undergone total gastrectomy. These are the patients who will be at an increased risk of developing malnutrition and related complications; these patients are also at an increased risk of developing anastomotic leakage, and in that case the feeding jejunostomy becomes the life-saving option. Feeding jejunostomy ensures that patients receive adequate calories, proteins, and micronutrients, supporting recovery and minimizing the risk of the complications. Studies have shown that feeding jejunostomy reduces postoperative infectious complications, anastomotic leaks, and length of hospital stay, because of the consequent improved nutritional status and enhanced immune function. Jaquet *et al*[7] in their study found that patients on feeding jejunostomy after gastrectomy for stomach cancer treatment experienced less weight loss, improved albumin levels, and fewer infectious and pulmonary complications compared to patients who did not receive such. Compared to nasogastric tubes, feeding jejunostomy is generally better tolerated by patients, provides greater reduction in discomfort, and facilitates earlier mobilization and recovery. Complications of feeding jejunostomy noted in the literature are minor, like clogging, tube insertion site infection, and peritubal leakage[8].

CONCLUSION

Feeding jejunostomy is one of the effective and well-established methods of postoperative enteral feedings. Its use in selected groups of patients, such as those who present with significant weight loss, advanced growth, inability to tolerate a nasojejunal tube, and increased risk of anastomotic leak post-operatively, can provide benefits from jejunostomy feeding in reducing complications, enhancing recovery, and helping them to complete the adjuvant therapy. Early oral feeding, nasojejunal feeding, and total parenteral nutrition are other methods of nutrition for these patients, however prospective clinical trials are required to establish the superiority of one method over the other.

FOOTNOTES

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