Introduction

Nutritional support is an integral determinant of survival in patients undergoing extensive intra-oral surgeries and/or chemoradiation. Finding alternative means of nutrition is important in the post-operative period until healing is complete and natural peristalsis can take place. In patients undergoing oral cancer resections, postoperative therapy like radiation could prolong the convalescent period and further delay oral food intake. In rare cases where oral and cancers have progressed to the traditional nasogastric feeding tube (NGF).2

Since the first Percutaneous Endoscopic Gastrostomy (PEG) was performed in 1979 by Gauderer et. al., the procedure has been widely adopted to be a viable alternative to the traditional nasogastric feeding tube (NGF).2 This study intends to explore the morbidity of PEG in the Head and Neck cancer population, and discuss the implication of such morbidity on the management of Head and Neck Cancers.

Methods

Records of patients who are undergoing or have undergone treatment for Head and Neck Cancers were reviewed. Data from Head and Neck cancer patients who received PEG tubes between 1998 and 2008 were used. Demographic and oncologic data were obtained. Oncologic data included tumor site and point in treatment at which PEG was received. Data about complication type, and services performing the PEG insertion were also analyzed. Data acquired for analysis are presented in Table 1a.

All patients were treated at the University of Kentucky Medical Center. The tubes were placed mostly by the general Surgery, Gastroenterology and ENT services. The PEG tubes were placed using standard gastroscopic pull method as described by Gauderer and Ponsky.2 The primary outcomes measured were complications arising from the PEG tube itself. Complication rates were recorded and classified as ‘major’ and ‘minor’ according to the Shapiro and Edmundowicz classification(Table Th).

Results

153 patients were identified with sufficient data available for review. 61.6% of patients were male. The average age was 63.1 years. Of the 153 patients, 62% were male and 38% were female. Complications were observed in 28.1% of patients. The most common documented complication was leakage around the gastrostomy site (9.2%). Other observed complications included cellititis of the abdominal wall (8.5%), abdinal wall abscess (5%), buried or extruded bumper (8%), and non patent tubes (2.5%).

Major complications were documented in 4 patients (2.6%), and included hemorrhage, perforated viscus, and peritonitis. Most patients received the PEG tubes during the intra-operative insertion of the Head and Neck cancers. The most common location of resected tumors was the oropharynx (21%). No association of complications of any type with age, gender, tumor site, stage, or surgical service was observed.

Discussion and Conclusion

The PEG tube has been widely accepted as a viable means of nutrition in patients undergoing postoperative resections from Head and Neck cancer.3 The tumor sites of patients in this study included the tongue, floor of mouth, larynx, esophagus, and pharynx base. PEG tubes are also used in patients with stroke, cleft palate, and dementia. Like all procedures there are complications associated with the PEG. However, we have been able to identify the variables at risk for complications.

For 153 patients undergoing or have undergone treatment for Head and Neck Cancers, the most common documented complication was leakage around the gastrostomy site (9.2%). Other observed complications included cellulitis of the abdominal wall (8.5%), abdominal wall abscess (5%), buried or extruded bumper (8%), and non patent tubes (2.5%). Major complications were documented in 4 patients (2.6%), and included hemorrhage, perforated viscus, and peritonitis. Most patients received the PEG tubes during the intra-operative insertion of the cancer. The most common location of resected tumors was the oropharynx (21%). No association of complications of any type with age, gender, tumor site, stage, or surgical service was observed.

PEG Complications and the Management of Head and Neck Cancer

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Abstract


Complications

Complications resulting from PEG in the head and neck cancer population are for the most part minor, self-limited, and likely underreported. Major complications are infrequent, but can be significant. Management and treatment implications with regards to head and neck cancer are discussed.

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