Recurrent Metastatic Spread to a Percutaneous Gastrostomy Site in a Patient With Squamous Cell Carcinoma of the Tongue: A Case Report and Review of the Literature

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Patients diagnosed with head and neck squamous cell cancer (HNSCC) frequently develop dysphagia and odynophagia owing to advancing disease or as a result of medical interventions. Selected patients diagnosed with advanced HNSCC may require the insertion of a percutaneous endoscopic gastrostomy (PEG) tube as part of their management. During the past 2 decades, there have been increasing reports describing tumor seeding at the PEG exit site, which have caused controversy relating to the technique used in PEG insertion. Although PEG placement is considered a safe procedure for patients with advanced head and neck cancer, the method can lead to tumor seeding, probably from direct traumatic tumor shedding. This report describes a case of tumor implantation at the PEG site in a patient with an advanced SCC of the tongue, with a review of the available literature concerning this rare condition and its possible pathogenesis.

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Although PEG placement is considered a safe procedure for patients with advanced head and neck cancer,[4] it is likely that the method as originally described by Gauderer et al,[5] in which a guidewire is pulled through the mouth through the esophagus into the stomach, can lead in some cases to tumor seeding, probably from direct traumatic tumor shedding.[6] This report describes a case of tumor implantation at the PEG site in a patient with an advanced SCC of the tongue, with a review of the available literature concerning this rare condition and its possible pathogenesis.

Report of Case

A 50-year-old previously healthy woman with no history of cigarette smoking or alcohol consumption was

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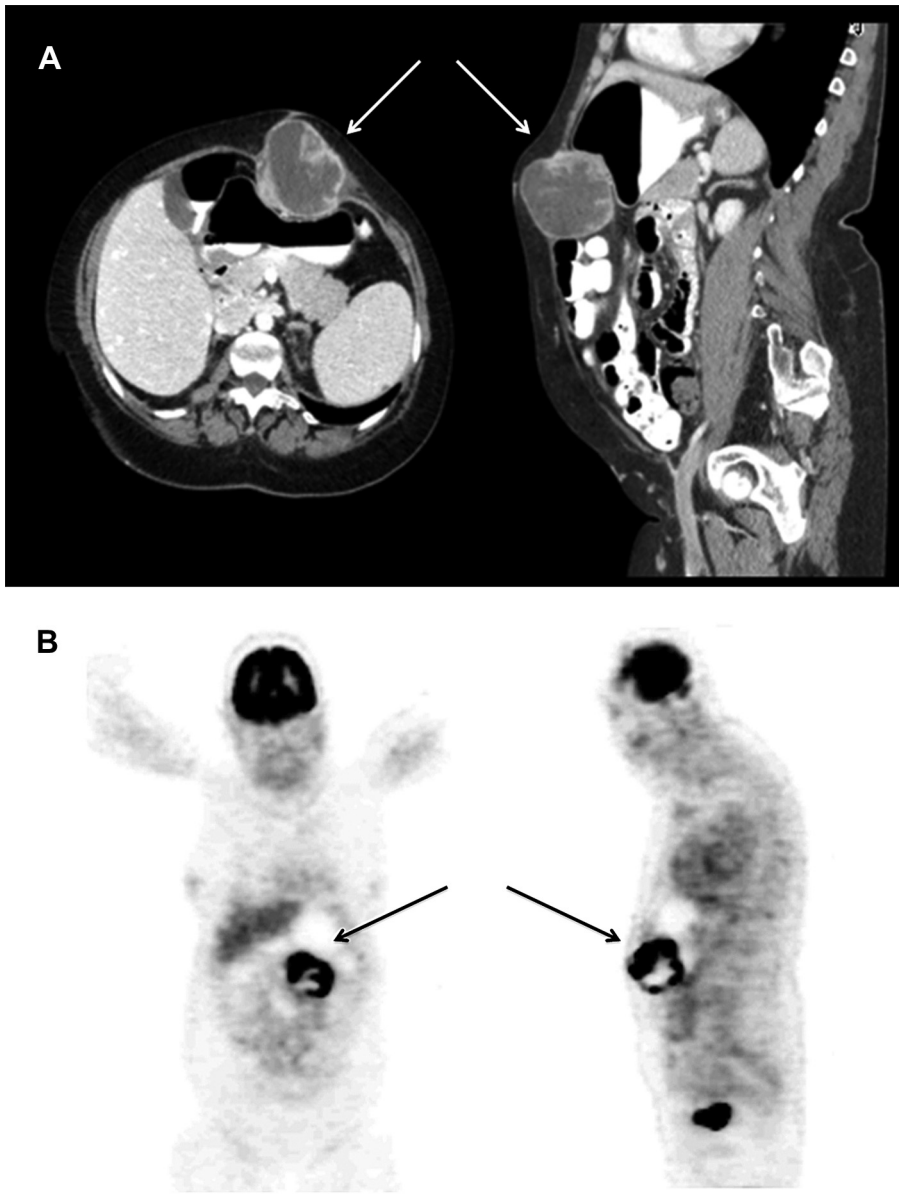

FIGURE 1. *A,* Computerized abdominal tomograms showing the abdominal mass (*arrows*) in axial and sagittal views. *B,* Coronal and sagittal ^{18}F-fluorodeoxy glucose positron emission tomograms showing tumor radionuclide accumulation (*arrows*).

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diagnosed in May 2011 with a T4N2cM0 (stage IV) poorly differentiated SCC of the tongue with perineural invasion and clinical involvement of the retromolar trigone, left tonsil, and base of the tongue. She underwent insertion of a PEG tube in June 2011 and received a 7-week course of chemoradiation, including cisplatinum (35 mg/m^2/week) and 70-Gy radiotherapy in 2-Gy daily fractions using an intensity-modulated radiation therapy technique from July 17 to September 4, 2011. After this therapy she achieved a complete clinical and radiologic response with no apparent residual disease at magnetic resonance imaging. She subsequently regained normal oral feeding and the PEG tube was uneventfully removed in December 2011. Routine follow-up visits were unremarkable except for expected radiotherapy side effects, such as xerostomia and oral candidiasis. In May 2012, she represented with a tender abdominal wall mass at the previous PEG site, which she stated had been present for a couple of weeks. A fusion positron-emission computed tomographic (PET-CT) scan depicted a 55- × 65-mm heterogeneous mass in the abdominal wall comprised of solid and liquid components having a maximal standard uptake value (SUV) of 9.1 without evidence of distant spread (Fig 1). The patient underwent en bloc resection of the mass, abdominal wall,