

TREATMENT OUTCOMES FOR SYNCHRONOUS OR METACHRONOUS HYPOPHARYNGEAL/LARYNGEAL/OROPHARYNGEAL CANCER AND ESOPHAGEAL CANCER

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Purpose : To evaluate the treatment of synchronous or metachronous hypopharyngeal / laryngeal / oropharyngeal head and neck cancer (H&N cancer) and esophageal cancer in our institution.

Materials and Methods : The retrospective study included patients with synchronous or metachronous H&N and esophageal cancer treated at our institution from 1998 to 2008. A synchronous malignancy was defined as a second malignancy diagnosed within 6 months after the initial diagnosis of cancer. A metachronous malignancy was defined as a second malignancy diagnosed more than 6 months after the initial diagnosis of cancer. For the treatment of esophageal cancer, 11 patients underwent surgery with or without neoadjuvant concurrent chemo-radiotherapy (CCRT), and the other 22 patients received definitive radiotherapy with or without concurrent chemotherapy. For the treatment of H&N cancer, 15 patients underwent surgical intervention with or without adjuvant CCRT, and the other 18 patients received definitive CCRT.

Results : Our study included 33 patients. Among these patients, 10 presented with synchronous H&N and esophageal cancer, and 23 patients developed metachronous carcinomas. The median age at primary diagnosis was 56.8 years (range: 40.7–79.6 years). The median follow-up time for living patients was 41.3 months. For the entire group, the median overall survival time (OS) and disease-free survival time (DFS) were 13.6 and 9.3 months, respectively. Univariate analysis revealed that T stage of esophageal cancer (T1/T2 vs. T3/T4) was a significant prognostic factor for OS and DFS (22.5 vs.12.2 months [$p = 0.041$], and 21.3 vs. 8.5 months [$p = 0.020$], respectively). In the case of synchronous or metachronous esophageal cancer, surgical intervention was associated with a better outcome than radiotherapy, with borderline significance ($p = 0.076$).

Conclusions : Patients with synchronous or metachronous H&N and esophageal cancer had poor outcomes. Those with T1/T2 esophageal cancer had a better chance for survival than those with T3/T4 esophageal cancer. This result implies that the T stage of esophageal cancer is a prognosis-limiting factor. Routine screening for

synchronous or metachronous esophageal cancer may facilitate early detection and thereby improve the outcomes.

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Key words: Hypopharynx, Oropharynx, Larynx, Esophagus

INTRODUCTION

Squamous cell carcinoma (SqCC) in the head and neck areas and upper gastrointestinal tract is variable, with origins greatly influenced by environmental and endogenous factors. It is known that long-term exposure to carcinogens is a major causative factor [3]. Prolonged exposure of the mucosal epithelium to alcohol or smoke can give rise to multiple premalignant or malignant lesions. A combination of neoplasms of the esophagus and pharyngeal region is frequently seen [16]. The incidence of synchronous or metachronous pharyngeal and esophageal carcinoma has been reported to range from 5% to 11% [4, 5, 11, 16, 18, 19]. The definition of metachronous or synchronous double cancer includes (1) histologic evidence of both lesions, (2) anatomical separation of 2 cm between the two tumors by normal mucosa, and (3) exclusion of the possibility of distant metastasis. If the second malignancy is discovered after a follow-up period of 6 months, it is classified as metachronous cancer. If the second malignancy is diagnosed within 6 months of diagnosis of the index tumor, it is classified as synchronous cancer [16].

In recent years, advances in the treatment of head and neck SqCC have improved the overall survival time (OS) and disease-free survival time (DFS) rates of these patients. Triple endoscopy (laryngoscopy, bronchoscopy, and esophagoscopy) is increasingly performed for patients with head and neck SqCC [9, 18]. Therefore, prolonged OS and more frequent screening may have

contribution to the increasing incidence rate of the secondary cancers. However, treatment outcomes for synchronous or metachronous malignancies remain poor [5, 18, 19], with median survival time ranging from 8.7 to 37 months [11, 18, 19]. There is still no consensus about the preferred treatment modality for double cancers. Therefore, we conducted a retrospective study to evaluate treatment modalities and outcomes in our institution.

MATERIALS AND METHODS

Patients

Patients with synchronous or metachronous head and neck cancer (H&N) and esophageal cancer treated at our institution from 1998 to 2008 were included in our study. The esophageal tumor staging process usually included computed tomography (CT), gastroscopy with biopsies, esophagogram, bronchoscopy, and endoscopic ultrasonography (EUS). A CT scan of chest was performed in 27 patients for whom this data was available. EUS and positron emission tomography (PET) were performed in 7 and 4 patients, respectively. The pretreatment staging procedure for H&N cancer usually included CT or magnetic resonance imaging (MRI), chest radiography, bone scan, and abdominal sonography. MRI was performed in 15 patients. None of the patients had distant metastasis at the time of diagnosis, and all were treated with a curative intent. They were staged according to the 6th American Joint Committee on Cancer (AJCC) staging system for both esophageal and H&N cancer.