Multiple Synchronous EGC and the Risk of Lymph Node Metastasis for Endoscopic Treatment

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Background and Aim: Endoscopic submucosal dissection is performed as an alternative treatment to surgery in early gastric cancer (EGC). The multicentricity rate of EGC ranges from 4% to 20%. There is little data regarding lymph node metastasis in synchronous multifocal EGC. The aim of this study was to investigate the risk of lymph node metastasis in synchronous multifocal EGC with the purpose of evaluating the potential for endoscopic treatment.

Patients and Methods: This study was a retrospective analysis of medical records in a university hospital. Patients who received radical gastrectomy to treat EGC between January 2001 and December 2007 were analyzed. Synchronous multifocal EGC was defined as EGC having two or more malignant foci. Main outcome measurement was Risk of lymph node metastasis.

Results: Of 2565 patients, 75 (2.9%) had synchronous multifocal EGC. The rates of lymph node metastasis were 10.7% in synchronous multifocal EGC and 8.8% in solitary EGC. In the multivariate analysis, lymph node metastasis was not significantly associated with synchronous multicentricity (odds ratio: 1.1, p=0.773) compared to that of solitary EGC. In the subgroup analysis of 75 patients with synchronous multifocal EGC, independent risk factors for lymph node metastasis were old age (≥65 years) and submucosal invasion. When major and minor lesions represented mucosal cancer with differentiated histology, there was no case of lymph node metastasis in synchronous multifocal EGC.

Conclusions: Synchronous multicentricity of EGC does not increase the risk of lymph node metastasis as compared to that of solitary EGC. Therefore, endoscopic treatment can be planned when major and minor lesions are predicted to be differentiated mucosal cancer.

Key Words: Lymph node metastasis, Early gastric cancer, Synchronous