

The clinical outcomes and the pathogenic background of gastric MALT lymphoma in Korea

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Background/Aims: Gastric MALT lymphoma is well known slowly progressing malignancy and has a pathogenic trigger, *Helicobacter pylori* infection, commonly with gastric adenocarcinoma. Literatures report about 6 times higher incidence of adenocarcinoma in gastric MALT lymphoma patients compared to that of general population. However, the development of gastric MALT lymphoma and adenocarcinoma seems to have different pathways. In this study, authors investigated the clinical course of gastric MALT lymphoma and the pathogenic background in the view point of Correa's hypothesis.

Materials & Methods: Study was conducted by review of electronic medical record of patients who were diagnosed with gastric MALT lymphoma at an academic institute, the Yeouido St. Mary's Hospital, Seoul, Korea, from January 2001 to May 2017. Clinical course was evaluated with analysis of demographic features, treatment modality and clinical outcomes. pathogenetic background was investigated in by *Helicobacter pylori* infection status, histology and serology.

Results: A total of 46 subjects were enrolled and analyzed during the study period. The mean age was 57.19-year-old (range 36 ~ 85). The male to female ratio was 1.19 (25/21). Endoscopic appearances varied; thirteen subjects presented ulcerative mass (28.26%), 12 (26.09%) as flat atrophic patch of discoloration, 16 (34.78%) erosive patches, 2 (4.35%) multiple polypoid lesion and 3 (6.52%) subepithelial tumor like. *Helicobacter pylori* infection was proved in 82.6 % (38 / 46). Atrophy and intestinal metaplasia were accompanied in background mucosa in 28.26% (13/46). Serum pepsinogen I and II, as serological marker for atrophy, was evaluated in 17 subjects. Only 9 of 17 (52.94%) showed compatible with gastric atrophy (pepsinogen I / II ratio of less than 3 or pepsinogen I of less than 70). The lymphoma stage by


Lugano stage was I1E (80.43%), I2E (2.17%), II1E (15.22%) and IIIE (2.17%). genetic alternation, t(11:18), was proved in 4 of 15 patients (23.53%). The treatment of gastric MALT lymphoma varied. 32 patients were treated with *Helicobacter* eradication therapy. Four patients received chemotherapy with cyclophosphamide, adriamycin, vincristine, prednisolone (CHOP) regimen, five patients received Radiotherapy and three patients underwent surgery. Of the 46 patients with MALT lymphoma, except for two who was referred to another hospital, 44 patients (100%) had complete remission. The mean time to remission was 130.81 days, and there was no difference in remission frequency according to each treatment method. Patients were followed up for 3.5~114.9 months (mean 40.86 months) and there was no recurrence in patients.

Conclusions: Gastric MALT lymphoma is well associated with *helicobacter pylori* infection and showed high prevalence of current infection (82.6%). However, the mucosal background of gastric MALT lymphoma showed low prevalence of atrophy and intestinal metaplasia, which in highly prevalent of and precedent to adenocarcinoma. It suggests that the pathogenic pathway of gastric MALT lymphoma and adenocarcinoma has different directions. The treatment for gastric MALT lymphoma varies according to kind of clinical conditions, and the result could achieve clinical remission regardless of treatment modalities.

Speaker Biography

Sang min Lee is a graduate of Kyungpook National University Medical School and has completed his major training at the Department of Internal Medicine, the Catholic University of Korea College of Medicine. Currently, he is in training for fellowship at the Department of Internal Medicine of Yeouido St. Mary's Hospital .He is majoring in gastroenterology and is working to become the best Endoscopic specialist in South Korea.

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