

# Significance of Persistent Nondysplasia Over Multiple Endoscopic Surveillance in Risk Stratification of Patients With Barrett's Esophagus

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## Summary

Gaddam et al<sup>1</sup> has reported a study entitled "Persistence of nondysplastic Barrett's esophagus (BE) identifies patients at lower risk for esophageal adenocarcinoma (EAC): results from a large multicenter cohort." in the September issue of Gastroenterology 2013. Using outcomes of a large multicenter cohort study of patients with BE, the authors evaluated how the persistence of BE without dysplasia over multiple consecutive surveillance using esophagogastroduodenoscopic examinations could have an effect in risk stratification of patients with BE. Based on the number of consecutive surveillance endoscopies presenting BE without dysplasia, they identified 5 groups of patients with BE without dysplasia. Group 1 was determined as the patients with BE without dysplasia at their first esophagogastroduodenoscopy (EGD). Group 2 was determined as the patients with BE without dysplasia at their first 2 consecutive EGDs. Similarly, groups 3, 4 and 5 were determined as the patients with BE without dysplasia at 3, 4, and 5 consecutive surveillance EGDs. A logistic regression model was used to determine whether the persistence of BE without dysplasia had independent effect for the development

of esophageal high grade dysplasia (HGD) and/or EAC. In results, a total of 1,401 patients with BE were finally included (median follow-up period;  $5.0 \pm 3.9$  years). The annual risk of HGD and/or EAC in group 1 ( $n = 1,401$ ), group 2 ( $n = 826$ ), group 3 ( $n = 484$ ), group 4 ( $n = 280$ ) and group 5 ( $n = 173$ ) was 0.75%, 0.57%, 0.41%, 0.44% and 0.00%, respectively ( $P$  for trend = 0.021). The persistence of BE without dysplasia, based on multiple surveillance endoscopies, was associated with a gradually lower likelihood of progression to HGD and/or EAC (OR, 0.67; 95% CI, 0.51-0.91;  $P < 0.01$ ), after adjusting for age, sex and length of BE. Through these results, the authors suggested that the persistence of BE without dysplasia over several endoscopic examinations could identify patients who are at low risk for development of HGD and/or EAC, and after all, these findings support lengthening surveillance intervals or discontinuing surveillance in the patients with persistence of BE without dysplasia

## Comment

Barrett's esophagus is a well-established risk factor for EAC, increasing incidence of EAC at a greater rate (approximately 6-fold increase since 1975).<sup>2</sup> The AGA guideline suggest that en-

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oscopic surveillance would be performed in patients with BE without dysplasia as 3-5 years intervals.<sup>3</sup> In the similar manner, the other Western guidelines recommend the enrollment of patients with BE in surveillance programs.<sup>4,5</sup>

Recent large cohort and epidemiological studies have shown that the risk of EAC in patients with BE without dysplasia is much lower than the assumed risk of 0.5%/year, which has been the basis for current surveillance guidelines. Data from these current studies bring into question about the rationale for ongoing surveillance in patients with BE without dysplasia.<sup>6,7</sup> Also, some argue lengthening the surveillance intervals or discontinuing the surveillance of patients with persistent BE without dysplasia. Despite the increased evidence showing a low risk of EAC in patients with BE without dysplasia, the inability to stratify the risk in BE patients has led to the ongoing recommendation for life-long endoscopic surveillance of all patients with BE without dysplasia. Until now, surveillance intervals were not standardized but have been consistent with guidelines.<sup>7</sup>

In this study, Gaddam et al<sup>1</sup> showed that the stable persistence of BE without dysplasia over several endoscopic examinations identified the patients at a very low risk of progression to EAC. The findings of this study should help to inform future decisions on surveillance intervals in patients with BE without dysplasia. As far as I know, this is the first study to show that patients with multiple endoscopic examinations presenting persistence of BE without dysplasia have a decreased risk of EAC. Despite the small sample size for groups 4 and 5 which may have resulted in a type II error and the possibility of a higher-risk cohort due to the study being performed in referral academic centers, the topic of this study is considered to be important and to have major values.

Unlike the Western countries, the Asian countries including Korea have the important distinct characteristics. First, although the prevalence of gastroesophageal reflux is increasing, the prevalence of BE and EAC has remained low in most Asian countries.<sup>8-10</sup> Second, upper endoscopic examination is easily accessible and available, evenly familiar in Asians, especially in Koreans,

in contrast to the Western population. At present, however, there is no guideline for surveillance of BE in Asia, and also the data regarding the management and long-term outcome of BE are extremely limited in Asia. Therefore, more studies of BE in this geographic area are warranted. Furthermore, the guidelines for surveillance and management suitable for this area will be required.

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