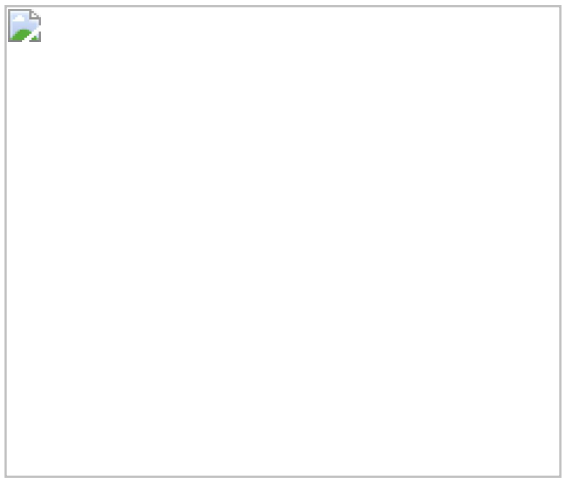
Incidence of Adenocarcinoma in Barrett's Esophagus

Published Oct 12, 2011 - Written by Ishani Ganguli



Lately, in our efforts to strike that tenuous balance between help and harm in cancer screening, we have erred on the side of doing less. Some guidelines now ask us to wait until 50 years of age to screen women for breast cancer. And we now have evidence that most men are better off if we don't check their PSA levels for hints of prostate cancer. For esophageal cancer, which is rare (16,980 new cases in the United States in 2011) but deadly (only 15-20% survive five or more years), the balance has been difficult to characterize, let alone achieve.

Unlike colon and cervical cancer, esophageal adenocarcinoma doesn't predictably progress through a precancerous stage. Barrett's esophagus—intestinal metaplasia in the distal tract that can be induced by acid reflux—offers our only screening clue, and only a small

subset of patients with esophageal cancer have carried a diagnosis of Barrett's. For those patients, we screen with upper endoscopy every few months to years, depending on the presence and degree of dysplasia found on diagnosis. This strategy is based on observational studies finding that 0.5% to 1% of patients with Barrett's develop esophageal cancer each year.

A new cohort study from Denmark, published in this week's NEJM, suggests that our approach may be too aggressive.

Dr. Frederik Hvid-Jensen and his colleagues at Aarhus University Hospital and the University of Aarhus used national registry data to track every Denmark citizen who had Barrett's esophagus between 1992 and 2009. They followed more than 11,000 of these patients for an average of five years and found that 197 were diagnosed with esophageal adenocarcinoma. More than one third of these were diagnosed within a year after they were found to have Barrett's, suggesting that the cancers may have been there all along.

Patients with Barrett's were more than 11 times more likely to develop adenocarcinoma than the general population (compared to previous estimates of 30-40 times the risk). And this absolute annual risk was only 0.12%. For patients who were found to have Barrett's with dysplastic cells on their initial endoscopy, this risk was higher: 0.51% per year.

"The key message of this paper is if you have Barrett's but you don't have any cellular dysplasia, the risk is small that you'll get esophageal cancer," says Dr. Dan Longo, the NEJM Deputy Editor responsible for the article. This nationwide cohort study is more reliable than prior observational studies which tended to inflate the risk.

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And the results suggest that we shouldn't screen patients with Barrett's esophagus unless they have evidence of dysplasia.

As Peter J. Kahrilas of Northwestern University writes in his editorial on this subject, "…currently available evidence has not shown the current strategy of Barrett's screening and surveillance to be cost-effective or to reduce mortality from EAC [9]. Reinforced by the elegant epidemiological data reported herein by Hvid-Jensen et al., the problems with Barrett's surveillance lie in the numbers."

How will these study results affect your clinical decisions? When it comes to cancer screening, how do you balance a patient's personal preferences and circumstances with cost-effectiveness and mortality data?

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Back to Top