Common hypertension medications may reduce colorectal cancer risk

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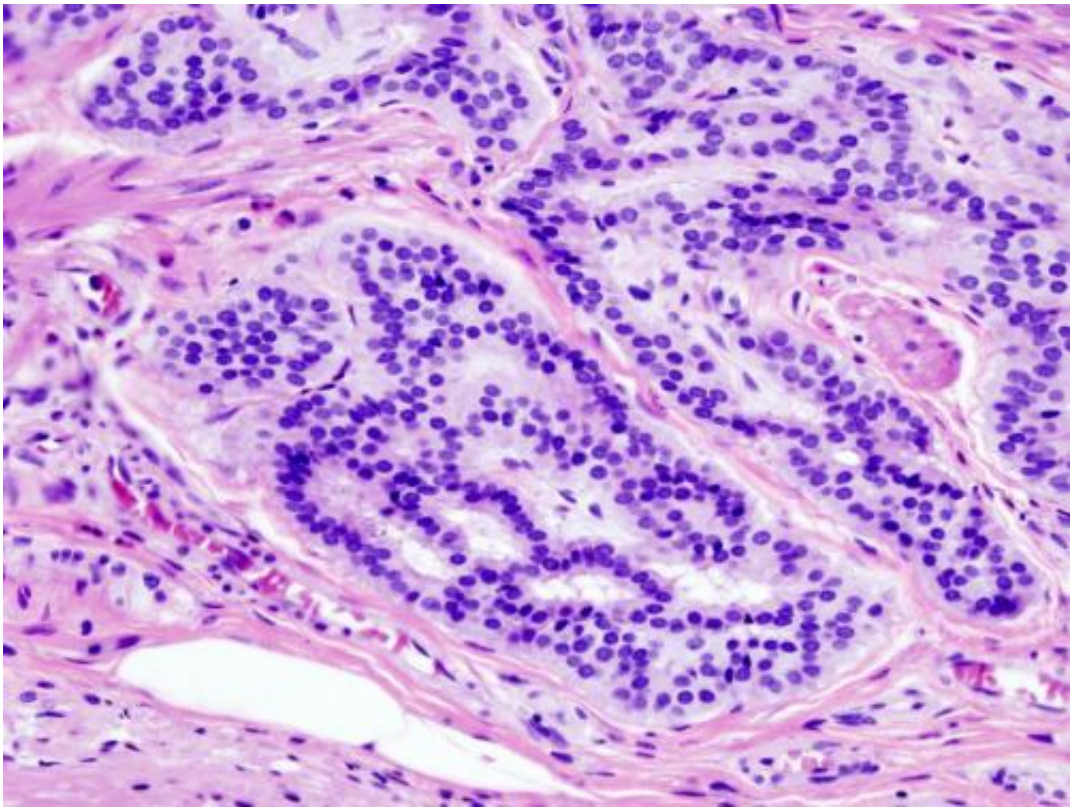

Cancer—Histopathologic image of colonic carcinoid. Credit: Wikipedia/CC BY-SA 3.0

Medications commonly prescribed to treat high blood pressure may also reduce patients' colorectal cancer risk, according to new research published today in *Hypertension*, an American Heart Association journal.

Angiotensin converting enzyme inhibitor (ACE-i) or angiotensin II receptor blocker (ARB) medications are prescribed for conditions such as heart failure, high blood pressure or heart disease. These medications inhibit or block angiotensin, a chemical that causes arteries to become narrow. Doctors commonly prescribe these medications to people with high blood pressure to relax and open blood vessels, thereby lowering blood pressure.

Based on the findings of this large study, taking these medications may also reduce colorectal cancer risk. Colorectal cancer is the third most common cancer and is the second leading cause of cancer death worldwide.

"The roles of ACE inhibitors and ARBs on cancer development are controversial and, in some cases, study findings are conflicting. Results of previous studies have been limited by several factors including a small number of patients and data only on short-term follow-ups. Our results provide new insights on a potential role of these medications for colorectal cancer prevention," said study author Wai K. Leung, M.D., clinical professor of medicine at the University of Hong Kong in Hong Kong, China. "This is the first study to show the potential beneficial effects of ACE inhibitors and ARBs on colorectal cancer development, based on a large group of patients who were colorectal cancer-free at the beginning of the study."

Researchers reviewed health records of 187,897 adult patients in Hong Kong from 2005 to 2013, with a negative baseline colonoscopy for colorectal cancer. The analysis found that:

- those who took hypertension medications such as ACE-i or ARBs had a 22% lower risk of developing colorectal cancer in the subsequent three years;
- the benefits of ACE-i and ARBs were seen in patients 55 or

older and those with a history of colon polyps; and
- the benefit associated with the medications was limited to the first three years after the negative baseline colonoscopy.

"While ACE-i and ARBs are taken by patients with high blood pressure, heart failure and kidney diseases, the reduction in colorectal cancer risk may be an additional factor for physicians to consider when choosing anti-hypertensive medications," Leung said.

This is a retrospective study, looking back at whether patients on these medications developed colorectal cancer. Researchers note that the results should be verified with a prospective randomized controlled study, which would actively follow patients to determine the potential benefits of these medications on colorectal cancer risk.

More information: Ka Shing Cheung et al, ACE (Angiotensin-Converting Enzyme) Inhibitors/Angiotensin Receptor Blockers Are Associated With Lower Colorectal Cancer Risk, *Hypertension* (2020). DOI: 10.1161/HYPERTENSIONAHA.120.15317

Provided by American Heart Association

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