Researchers study the risk of false positives in colon cancer screening

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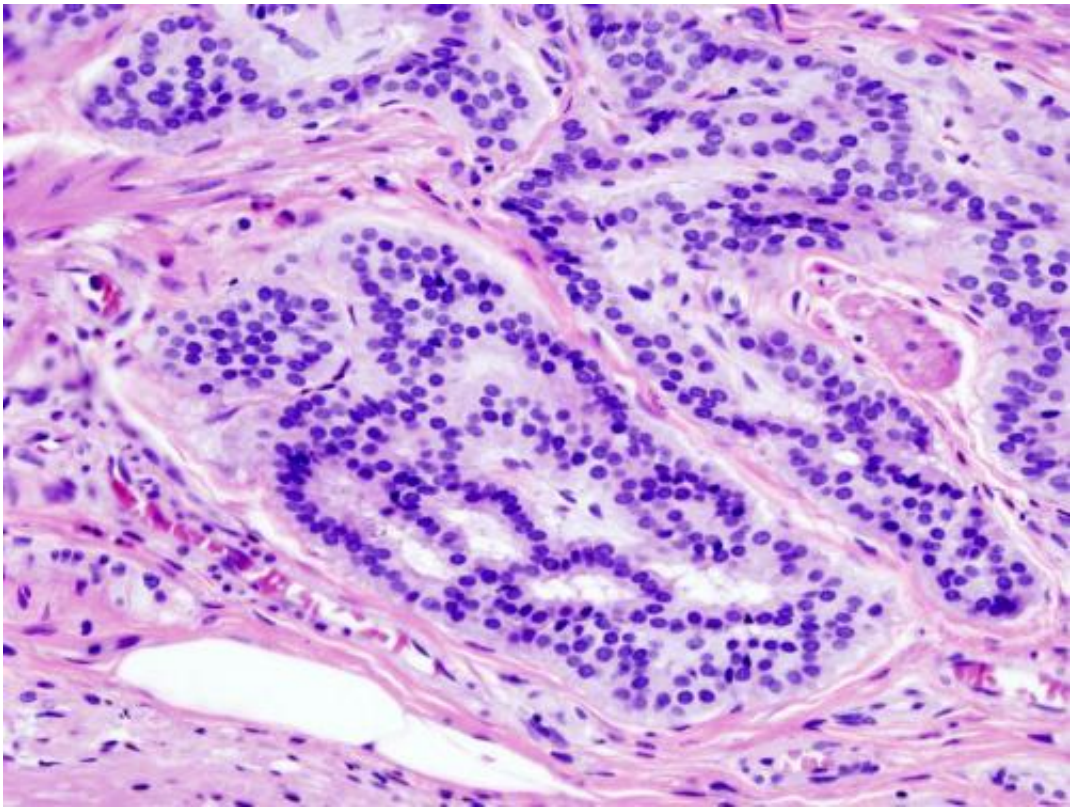

Cancer—Histopathologic image of colonic carcinoid. Credit: Wikipedia/CC BY-SA 3.0

Colorectal cancer can develop for months without producing any symptoms and, as soon as the first ones appear, sometimes the disease is already in an advanced stage. Screening programs allow to detect the disease when it is in its initial stages and, thus, to be able to treat it in

time and increase the chances of cure. But, despite its clear benefits, there may be a small group of patients who suffer the consequences of a 'false positive.' This means that the blood found in the stool may be due to benign pathologies such as (hemorrhoids or polyps) and not from cancer and, therefore, a colonoscopy should be performed to confirm the diagnosis. Therefore, reducing the possibility of a 'false positive' result is very important to improve the risk-benefit balance of screening programs.

For this reason researchers from the Oncology Data Analytics Program (PADO) and the Screening Unit of the Cancer Prevention and Control Program of ICO and CIBERESP, coordinated by the ICO-IDIBELL researcher, Víctor Moreno, have just published In the scientific journal *Cancer Epidemiology, Biomarkers and Prevention* a study to estimate the cumulative risk of a 'false positive' result in the fecal occult blood test during 7 rounds of colorectal screening performed in the area of influence of the ICO and identify its associated factors in a population-based colorectal cancer screening program.

A study with 17 years of evolution (2000-2017)

The objective of this study has been to estimate the cumulative risk of a false positive in the fecal occult blood test during 7 rounds of screening and to identify its associated factors in a population-based screening program for colorectal cancer. During the period 2000-2017, the accumulated risk of a 'false positive' result was 16.2% adjusted for age, sex and type of test. These data indicate that participants who begin screening at the age of 50 and complete the 10 rounds of screening until the age of 69, have more than 20% chance of having a 'false positive.' Anyway, the only harm would be having to do an unnecessary colonoscopy.

"We believe that the cumulative risk of a 'false positive' in colorectal

screening using a fecal occult blood test seems acceptable, since colonoscopy lengthens the time required to perform another additional colorectal screening, while rates of complications remain relatively low," concludes the article's corresponding author and responsible for the research at the Screening Unit of the Catalan Institute of Oncology, Montserrat García.

Colon and rectal cancer

Colon and rectal cancer is a common disease from the age of 50. It is the most frequent cancer considering the cases of both sexes, and it is estimated that 6,000 new cases are diagnosed in Catalonia every year. It is the second leading cause of cancer death in our country (2,500 annually), and the vast majority occur in people over 60 years.

Most colorectal cancers develop from lesions called adenomatous polyps, precancerous lesions. Both polyps and cancers bleed intermittently, and it is this blood that can be detected through the test offered by the Early Detection Program. Colorectal cancer can develop for months without causing discomfort and often, when it appears, the disease is already quite advanced. Early detection programs make it possible to detect the disease in its early stages, which makes it easier to treat and increase the chances of cure. This is probably one of the best examples of how early detection improves the prognosis of the disease and reduces the aggressiveness of the treatments.

More information: Gemma Ibáñez-Sanz et al, False-Positive Results in a Population-Based Colorectal Screening Program: Cumulative Risk from 2000 to 2017 with Biennial Screening, *Cancer Epidemiology Biomarkers & Prevention* (2019). DOI: 10.1158/1055-9965.EPI-18-1368

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