

Efficacy in standard clinical practice of colonoscopic polypectomy in reducing colorectal cancer incidence

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Background-Colorectal cancer (CRC) is one of the leading causes of death from cancer in Western countries. The removal of adenomas is based on the assumption that it could lead to a reduction in incidence of CRC, as was demonstrated by the National Polyp Study (NPS) in the USA. A critical issue is whether the benefit observed in clinical trials can also be observed in standard clinical practice. To address the issue, a multicenter Italian collaborative study was organized.

Methods-The study cohort consisted of 1693 subjects of both sexes, aged 40 to 69 years, enrolled between 1980 and 1987 following a total colon examination (TCE), i.e. total colonoscopy or colonoscopy and double contrast barium enema (DCBE), with removal of at least one adenoma larger than 5mm in diameter. Genetic syndromes, previous adenomas or CRC, previous colonic resection, inflammatory bowel disease (IBD), sessile adenomas more than 3cm in diameter were exclusion criteria. Follow-up was closed at December 1996 by TCE or phone interviews, review of medical records, clinical files or death certificates. Incidence ratios for colorectal cancer were compared with the expected age and sex specific incidences in the Italian general population. ***Results***- Follow-up data were obtained for 97.3 percent of cases for a total of 14,211 person/years. Mean follow up was 10.5 years. Six colorectal cancer cases (4 in males, 2 in females), at various stages, were ascertained (one at 29 months, two at 5 years, one at 7 years, one at 8 years and one at 10 years from index examination). The number of cancers expected in the reference population was 17.7 for an incidence ratio of 0.34 (CI 0.23-0.63; $p < 0.01$).

Conclusions-Colonoscopic polypectomy substantially reduced CRC incidence in the cohort in comparison to that expected in the general population. These results are of particular relevance considering that people with adenomas are at increased risk for CRC and that this retrospective study was performed on data gathered in settings of standard clinical practice. This observation strengthens the concept

of effective population screening in view of the fact that adenomatous polyps are the most frequent neoplastic outcome of screening and their removal is associated with a decrease in the incidence of colorectal cancer.

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