

Evaluation of a new test for colorectal neoplasms: a prospective study of asymptomatic population.

[Sakamoto K](#)¹, [Muratani M](#), [Ogawa T](#), [Nagamachi Y](#).

Author information

Abstract

In a recent pilot study, we have suggested of potential usefulness of a new test (Shams' test) for screening colorectal (CR) cancer in Japan. Although the sensitivity of this test was remarkably high, its accurate specificity was unclear. The purpose of our present study is to evaluate the incidence of non-specific reaction of Shams' test in the normal Japanese populations. We analyzed 330 asymptomatic individuals, who were seen for annual health checkup, for the presence of the tumor marker D-Gal-B (1- > 3)-D-GalNAc in their rectal mucin. The rectal mucin was smeared on nitrocellulose membrane filter and developed by a sequential reaction of B-D-galactose oxidase and Schiff's reagent. Immunological fecal occult blood test (FOBT) was done in parallel. Extensive study by barium enema/total colonoscopy was indicated only for those who showed positive results with Shams' test or FOBT. A total of 271 individuals were negative, while 50 and 9 had positive and equivocal (+/-) results, respectively. Subsequent barium enema and fiberoptic proctocolonoscopy examinations, which were available on 32 of 59 cases, revealed 6 adenomatous polyps, one villous adenoma with focal severe atypia, and 4 cases of diverticular disease. Except for one patient with polyp, 6 other patients harboring polyps were negative with immunological FOBT. The overall specificity of Shams' test was 92.2% (271/294). Based on these results and preceding reports, we concluded that Shams' test could be a useful tool in our strategy for early detection of CR neoplasms and precancerous lesions.