

FECAL IMMUNOCHEMICAL TEST FOR COLORECTAL CANCER SCREENING IN AVERAGE RISK INDIVIDUALS AT EAST AVENUE MEDICAL CENTER

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ABSTRACT

Significance: Colorectal cancer (CRC) is among the leading causes of mortality and morbidity throughout the world, thus representing a major public health problem. Fecal Immunochemical Test (FIT) is one of the methods used for CRC screening stated in several guidelines. In the Philippines, up to date, no study has been published to validate the usefulness of FIT in CRC screening. This study aims to evaluate the accuracy of the FIT in the detection of CRC and advanced adenomas in average-risk individuals.

Methods: This is a prospective, cohort study that included 87 patients at East Avenue Medical Center OPD aged 50-75 who completed single qualitative FIT and colonoscopy for CRC screening from May 1, 2019 to December 15, 2019. High risk individuals and those with history of hematochezia and total colectomy were excluded from the study. Participants were provided qualitative FIT kit and subsequently underwent colonoscopy. FIT result and colonoscopy and histopathologic findings were then analyzed. Sensitivity, specificity, positive and negative predictive values, likelihood ratios and diagnostic accuracy rates with 95% confidence interval were then computed.

Results: 125 patients were recruited in this study. Only 87 completed single FIT and colonoscopy. Out of 87 subjects the proportion of patients with positive FIT was 26.9%. The overall sensitivity and specificity of FIT in detecting invasive cancer and advanced adenoma were 75% and 84%, respectively, with an overall diagnostic accuracy of 82.8%. On location-specific performance, rectal and distal colon lesions had both sensitivity of 100% and specificity of 40% and 60% with diagnostic accuracy of 75% as compared to proximal colon with sensitivity of 25% and specificity of 80%.

Conclusion: In average risk individuals, FIT is modestly sensitive and specific in detecting colorectal cancer and advanced adenoma. Negative FIT is sufficiently sensitive to exclude colorectal cancer and advanced adenoma in left-sided lesions. There is higher chance to miss proximal colon lesion as compared to distal colon and rectal lesions using FIT.

Keywords: Prospective cohort, Fecal Immunochemical Test, FIT, colorectal cancer, colorectal adenoma, screening, average risk