

Neoplasia yield with FIT two years after CTC screening

Daniele Regge, Nereo Segnan, Loredana Correale, Cesare Hassan, Arrigo Arrigoni, MD; Roberto Asnaghi, MD; Gianmarco Bulighin, MD; Daniela Molinar, MD; Stefania Montemezzi, MD; Carlo Senore MD, MSc.

Candiolo Cancer Institute-FPO, IRCCS, Candiolo, Italy (D. Regge, MD)

AOU S Giovanni Battista-CPO Piemonte, SC Epidemiologia screening, registro tumori - CPO, Turin, Italy (N. Segnan, MD, MPH; C. Senore, MD, MSc)

im3D S.p.A., Turin, Italy (5) Endoscopy Unit, Nuovo Regina Margherita Hospital, Rome, Italy (L. Correale, PhD)

Endoscopy Unit, Nuovo Regina Margherita Hospital, Rome, Italy (C. Hassan, MD)

Endoscopy Unit, Ospedale San Giovanni Antica Sede, Turin, Italy (A. Arrigoni, MD)

Radiology Unit, Fondazione Salvatore Maugeri, IRCCS, Istituto Scientifico di Veruno, Veruno, Italy (R. Asnaghi, MD)

Endoscopy and Gastroenterology Unit, U.I.s.s. 20 Verona, Ospedale G. Fracastoro – San Bonifacio, Verona, Italy (G. Bulighin, MD)

Radiology Unit, Ospedale degli Infermi, Biella, Italy (D. Molinar, MD)

Radiology Unit, Azienda Ospedaliera Universitaria Integrita di Verona, Verona, Italy (S. Montemezzi, MD)

Background. CT colonography (CTC) has been proposed as potential test for population-based screening due to its high acceptability and ability to image the entire colon. We have conducted a trial (Proteus trial) comparing neoplasia yield of CTC and sigmoidoscopy in a population based screening setting among subjects aged 58-60. Screenees detected with polyps ≥ 6 mm at CTC were referred for colonoscopy (TC), while those with negative CTC, as well as those detected with polyps < 6 mm, were referred for routine screening

Methods. According to the FIT screening protocol eligible screenees enrolled in the Proteus trial, were invited to undergo FIT screening (single sample, with a positivity cut-off at 20 $\mu\text{g}/\text{gr}$. faeces) two years after the screening CTC. The outcomes of interest were: participation rate (proportion of invitees examined), positivity rate (PR), positive predictive value of TC referral and detection rate (DR) of advanced adenomas or CRC (AN).

Results. Participation was 70.4% (1541/2331); the PR was 4.1% and 89.7% (57/64) of those referred for TC actually had the test. The PPV for AN was 17.5% (10/57, including 1 CRC) and the AN DR was 6.1% .

Conclusion. Participation in FIT screening among subjects having performed a CTC was lower than among subjects who had previous FIT tests. FIT is still detecting AN among subjects with diminutive polyps or negative CTC, although PR and PPV are lower as compared to subjects with previous negative FIT result. Reviewing CTC exams of subjects detected with neoplasms at FIT screening would allow to study characteristics of lesions not detected at CTC.