Introduction

Cancer screening is one of the most effective methods for cancer control. Korean National Cancer Screening Program (KNCSP) started from 1999 to provide organized cancer screening targeted to stomach, breast and cervix cancer for the low income people to reduce cancer burden. Since 2002, KNCSP has expanded the target population and provided all the people to take regular cancer screening when they come to a certain age. In 2003, liver cancer screening in high risk population was included in KNCSP. In 2004, colorectal cancer was included also in KNCSP. Thus KNCSP covers five major cancers; stomach, colon, liver, breast, and uterine cervix cancer. National Health Insurance (NHI) beneficiaries in the lower 50% income stratum receive KNCSP by free. The upper 50% income stratum can have KNCSP services with 10% of out of pocket cost.

The colorectal cancer screening in KNCSP is provided to people aged 50 or more by fecal immunochemical test (FIT) annually. If the result of FOBT is positive, then the participants can receive double contrast barium enema (DCBE) or colonoscopy for further evaluation.

Current status of national colorectal cancer screening

The participation rate of KNCSP has been increased from 12.7% in 2002 to 37.1% in 2014. Colorectal cancer screening rate has been increased also from 10.5% in 2004 to 26.6% in 2014. The colorectal cancer screening rate is still lower than other cancer screening rates.

When colorectal cancer screening rate is calculated from both KNCSP and private screening, the rate is as high as 59.5% in 2015. The rate, which calls the cancer screening rate with recommendation, is analyzed from the annual survey with nationwide region-stratified sampling performed by National Cancer Center (NCC). In the survey, the colorectal cancer screening rate is asked if the participants get a colorectal cancer screening by fecal test within 1 year, or DCBE within 5 years, or colonoscopy within 10 years.

Positive rate from FIT in KNCSP is overall 7.3%. When FIT result is positive, about 92% of examinees choose the secondary exam as colonoscopy instead of DCBE.
Revised colorectal cancer screening guideline

From 2013, the research project started to revise and develop the cancer screening guidelines by evidence-based methods. Target cancers for new guidelines are seven cancers including stomach, colon, liver, breast, cervix, lung and thyroid cancers. The process of cancer screening guideline revision has three steps. In the first step, the multidisciplinary expert committee was composed and the committee developed key questions for revising the guidelines. A systematic literature review for the key questions was performed. In the second step, the effectiveness of 10 year- national cancer screening program was analyzed in the aspect of early cancer detection and mortality reduction. Through the process, a draft of the revised guidelines was developed. The draft was open to gather external expert opinions. After reviewing of the gathered opinions, the final cancer screening guidelines were published in 2015.

From the new guideline, colorectal cancer screening is recommend to get annual or biennial fecal immunochemical test for asymptomatic 45 to 80 years aged adults. Colonoscopy is recommended as a selective method for colorectal cancer screening, which means colonoscopy can be selectively provided according to professional judgment and patient preferences.

In the third step, based on the revised cancer screening guideline, the modification of national cancer screening program is discussed. In this step, cost-effectiveness and feasibility of the revised program will be considered.

Quality improvement - future goal

Even though colorectal cancer screening rate is still low, but the quality assurance is important not only to enhance the effectiveness of the screening, but also to improve the participation with confidence for colorectal cancer screening program. For quality assurance, NCC comprised the national committee for of KNCSP quality control. The committee will revise the guideline of quality assurance of national cancer screening program.

Through these efforts including to prepare evidence-based effective screening program and to improve quality of screening examination, the people will participate KNCSP with their proud.

References