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New Fecal Screening Test Shows Promise in Detecting Colorectal Cancer

The *British Journal of Cancer* recently reported the results of a study that identified a new enzyme known as M2 Pyruvate Kinase (M2-PK) as a potential marker for the detection of colorectal cancer.

Colorectal cancer is the second leading cause of cancer related deaths in the United States. Colorectal cancer is a malignancy that involves both the large intestines (colon) and a distal portion of the colon known as the rectum. When colorectal cancer is diagnosed, it is defined by the extent of the disease and the "stage" of the disease is determined. If the cancer is not detected early, it may spread throughout the abdomen and to other surrounding organs, particularly the lungs or the liver. Treatment for colorectal cancer depends on the stage at which the disease is found.

Colorectal tumor cells have been identified as the source of the M2-PK enzyme and it has been determined that levels of the enzyme correlate with the stage of the disease, as well as the cell's ability to metastasize (spread in the body). In this study, researchers explored the possibility that M2-PK may be detectable in the feces of patients. Stool samples were collected from patients diagnosed with various stages of colorectal cancer, as well as patients without colorectal cancer who served as the control group. M2-PK levels were found to be lowest in the control group and were found to be considerably higher in the patients diagnosed with colorectal cancer. In addition, M2-PK levels were strongly correlated with the different stages of colorectal cancer, with higher levels associated with more advanced stages of the disease.

Researchers concluded that the ability of evaluating M2-PK levels in the feces provides a promising new screening tool for colorectal cancer. However, further studies are needed to confirm this finding.

Reference: Hardt P, Mazurek S, Toepler M, and et al. Fecal Tumor M2 Pyruvate Kinase: A New Sensitive Screening Tool for Colorectal Cancer. *British Journal of Cancer*. 2004; 91: 980-984.