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Press releases

ENZYME SIGNPOST POINTS TO BETTER BOWEL CANCER TEST

A NEW test for bowel cancer could be on the horizon, according to a study published in the *British Journal of Cancer** today (Tuesday).

The test detects an enzyme, called Tumour M2-PK, which is a byproduct of tumour growth. The test detects the cancerous tissue into the bowel and can then be found in faeces. The researchers, based in Germany, found that levels of the enzyme in faeces not only confirmed a diagnosis, but also advanced the disease was.

The UK Government is currently considering the introduction of a national bowel-screening programme. One of the tests under consideration is the Faecal Occult Blood Test (FOBT), which is a method of detecting a symptom of bowel cancer. The researchers hope Tumour M2-PK could offer a better tool to

Previous research estimates that about 1,200 bowel cancer deaths would be prevented each year if the current FOBT was introduced. There are over 35,000 cases and over 16,000 deaths from bowel cancer each year in the UK.

However, the FOBT cannot distinguish whether the blood in the faeces is caused by a tumour or a benign condition such as piles. A false positive result can also be caused by certain foods and drinks. Only about 25% of people with a single positive FOBT will have bowel cancer.

This level of false results means that many people who do not have cancer might undergo invasive tests such as a colonoscopy¹, unnecessarily.

The test also fails to pick up all cases of bowel cancer, as not all tumours bleed. Only about 25% of bowel cancers will be detected by FOBT.

The researchers believe that an additional test for Tumour M2-PK could be key to improving bowel cancer screening. They obtained faecal samples from patients who were to undergo colonoscopies for which a sample was taken prior to the procedure and levels of Tumour M2-PK recorded. The colonoscopy results showed that 60 patients had bowel cancer and 144 did not. The researchers found that the levels of Tumour M2-PK were higher in the 60 patients with the disease.

Dr Philip Hardt, the study's lead researcher based at Giessen University Hospital, says: "We found a clear difference in the level of Tumour M2-PK between those with a confirmed diagnosis of bowel cancer and those who were disease free. There was also a very strong link between the amount of enzyme found and the extent of disease spread."

"We will now look to test Tumour M2-PK in a large trial, but this enzyme has the potential to be used as a diagnostic tool. It could detect more cases of the disease and possibly save unnecessary medical procedures and hospital admissions from positive results."

Professor Robert Souhami, Director of Policy and Communication for Cancer Research UK, which publishes the *British Journal of Cancer*, says: "There is currently much interest in this area of research. We hope that this one will eventually offer not only useful screening tools, but also an effective method of monitoring bowel cancer patients in remission, so that any return of disease can be quickly detected and acted upon."

¹ Following a positive FOBT a doctor would call for further tests – normally a colonoscopy. During a colonoscopy, a doctor passes a flexible tube into the rectum and up into the bowel. As the tube bends easily, it follows the curves in the bowel so the doctor can examine the whole length of it. A light inside the tube allows the doctor to see any problem areas or swelling.

For media inquiries please contact Paul Thorne on 020 7061 8352, or out of hours, the duty phone on 020 764059.

Notes to editors

· Faecal Occult Blood Test is a chemical test that can pick up minute traces of blood in the faeces normally done by applying a small sample of faeces to a piece of paper that contains the reactant. The paper changes colour if blood is present. The test can be done at home and then sent into the laboratory. A positive test would mean further Faecal Occult Blood Tests over several weeks. If the results are positive a doctor will usually then perform a colonoscopy. A colonoscopy is performed to check for the cause of the bleeding.

· The Government is also considering the national introduction of another screening programme sigmoidoscopy. It involves a doctor looking into the bowel with a specially designed scope to find polyps and remove them before they become cancerous. If the results of a Cancer Research UK trial show that once in a lifetime flexible sigmoidoscopy screen prevents a substantial number of bowel cancers for the NHS, it is likely that a once-only flexi-scope screen at age 60 will also be available.

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