Omega 3 curbs precancerous growths in those prone to bowel cancer

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A purified form of an omega 3 cuts the number and size of precancerous bowel growths (polyps) in people whose genetic make-up predisposes them to bowel cancer, finds research published ahead of print in the journal *Gut*.

Furthermore, this particular omega 3 (eicosapentaenoic acid or EPA) seems to be as effective as the prescription medicine used to treat familial bowel polyps, but without the associated cardiovascular side effects.

The researchers base their findings on 55 patients, all of whom had the inherited genetic mutation that prompts the development of precancerous polyps in the bowel - known as familial adenomatous polyposis, or FAP for short.

People with FAP are at significantly increased risk of developing bowel cancer and require surgery to remove large sections of their bowel. Subsequently, some also need regular monitoring.

All 55 patients had previously undergone surgery and were being monitored by endoscopy - a procedure involving a camera on the end of a flexible tube passed through the rectum.

Twenty eight of the patients were randomly assigned to six months of treatment with 2 g daily of a new highly purified form of the omega 3 polyunsaturated fatty acid (PUFA) EPA. The other 27 were given the

same amount of a dummy treatment (placebo).

The EPA capsules were enteric coated to prevent the indigestion that can sometimes be associated with omega 3 supplements. Dietary omega 3 PUFA mainly comes from oily fish, such as salmon, mackerel, and herring.

An assessment of the number and size of polyps at the beginning and end of the six month study period revealed significant differences between the two groups of patients.

The number of polyps increased by almost 10% among those treated with the placebo, but fell by more than 12% among those treated with the EPA capsules, representing a difference of almost 22.5%.

This was still clinically significant, even after taking account of influential factors, such as age and sex.

Similarly, polyp size increased by more than 17% among those in the placebo group but fell by more than 12.5% in those taking the EPA capsules, representing a difference of just under 30%.

The authors note that the effects of EPA were similar to those produced by celecoxib, which is used to help curb the growth of new and existing polyps in patients with FAP.

The use of celecoxib has been associated with harmful cardiovascular side effects in older patients. In this study, EPA produced few side effects and these were no more common than those produced by the placebo.

This formulation of omega 3 might also help to prevent bowel cancer in people with the common non-familial form of bowel polyps, suggest the

authors.

As omega 3 PUFAs in general are safe and even good for cardiovascular health, EPA could be especially suitable for older patients at risk of both bowel cancer and heart disease, they say.

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