Mesalazine attenuates tumour formation by 50% in hereditary bowel cancer cases

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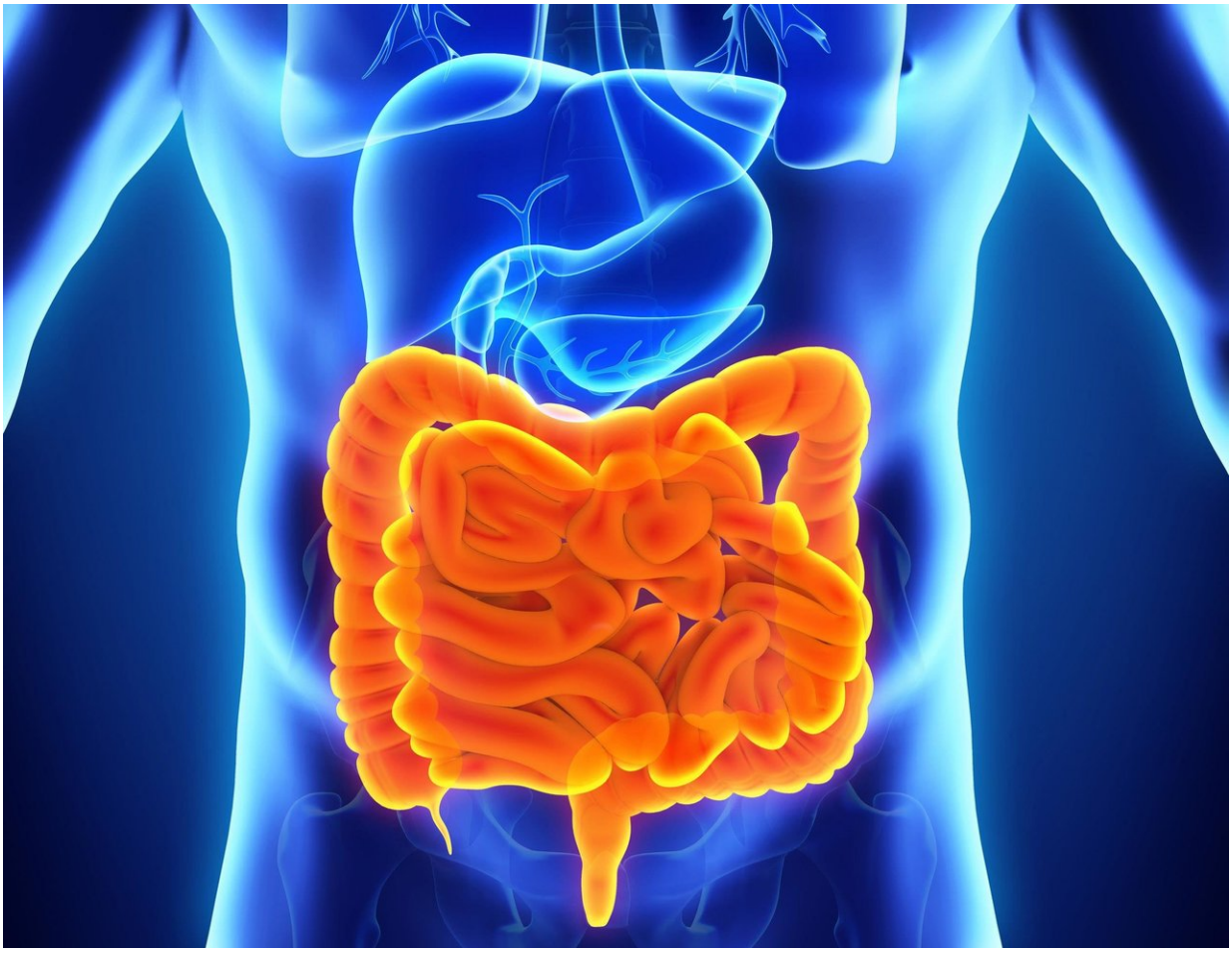

Hereditary bowel cancer: mesalazine attenuates tumour formation by 50%.
Credit: Medical University of Vienna

Around 5,000 Austrians a year develop a colorectal carcinoma, that is to say cancer of the colon or rectum. Around 5% of these are genetically predisposed and develop Lynch syndrome, the commonest genetic form of bowel cancer, equating to approx. 250 cases a year. An international team of researchers, including scientists from MedUni Vienna's Department of Surgery and Department of Medicine III, have now discovered that Lynch syndrome patients who are given the anti-inflammatory drug mesalazine develop tumours less frequently and the number of tumours that develop (neoplasia) is significantly reduced.

"On average, 94 out of 100 patients develop tumours but, if they are given the drug, this number falls to 69," explains Judith Karner-Hanusch, expert in general, vascular and visceral surgery at MedUni Vienna. "In turn, the number of tumours drops from an average of 3.1 per patient to 1.4 per patient." This was demonstrated in the mouse model. The Phase II trial in humans is now about to start. However, the results are so promising that they are expected to be confirmed says Christoph Gasche, Head of the Laboratory for Molecular Carcinomas and member of the Comprehensive Cancer Center (CCC). "We should be able to prove that administration of this drug, already licensed for many indications, can largely eliminate the hereditary tumour burden for patients."

The study is being conducted jointly with scientists from Germany, Poland, Israel, Sweden and the Netherlands and the FWF science fund is financing the study in Austria to the tune of €500,000.

Risk increased by uterine cancer

Mesalazine is an amine derivative of salicylic acid (5-aminosalicylic acid/5-ASA), which is used as an anti-inflammatory drug in the treatment of chronic inflammatory bowel conditions (such as Crohn's disease and ulcerative colitis). It was shown in the animal model that

mesalazine reduces the number of tumours by 50% in hereditary Lynch syndrome.

The risk group for Lynch syndrome includes people in whose family there has been at least one related patient below the age of 50, in whose family the disease occurs in at least two subsequent generations and in whose family there are three members with carcinomas associated with hereditary forms of bowel cancer (Amsterdam II criteria) – as well as developing the condition at a young age. Also, emphasises Karner-Hanusch, uterine cancer (endometrial carcinoma) is a strong indication of genetic mutations and Lynch syndrome: "Women with uterine cancer, not to be confused with cervical cancer (Note: HPV), carry a 40% risk of hereditary bowel cancer and should have themselves tested."

Registration for the Phase II trial

Volunteers with hereditary bowel cancer are still being sought for the Phase II trial at MedUni Vienna. Anyone who is interested should contact Judith Karner-Hanusch on Tel.: 01 / 40 400 / 64 920 during the day between 13:00 and 14:45 hrs. to make an outpatient appointment for an initial discussion.

Provided by Medical University of Vienna