# Immune-boosting colorectal cancer drug shows promise

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New data on an emerging treatment that aims to fight colorectal cancer by stimulating the immune system have been presented at the ESMO 15th World Congress on Gastrointestinal Cancer.

The findings confirm the biological action of the drug called MGN1703 and suggest it may be possible to identify which gastrointestinal cancer patients will benefit most from the treatment, reported Prof Hans-Joachim Schmoll from Martin Luther University, Halle, Germany.

MGN1703 is a small DNA molecule recognised by a receptor —called toll-like receptor 9— that is expressed in certain immune system cells. The drug is designed to broadly activate all components of the innate immune system to stimulate the destruction of cancer cells.

The new data come from the final analysis of the phase II IMPACT study, which investigated MGN1703 in 59 patients with metastatic colorectal cancer.

The IMPACT study was an international, randomised, double-blind trial that was conducted in patients who had achieved disease control after 4.5 to 6 months of chemotherapy.

Standard chemotherapy for patients with metastatic colorectal cancer who respond to treatment is often completely or partially discontinued until the disease progresses. It was during this 'maintenance' phase of treatment that the new drug was administered.

Prof Schmoll and colleagues had intended to test the drug on 129 patients, but difficulties recruiting participants meant the trial was closed after 59 patients had been randomly assigned to either MGN1703 (43 patients) or placebo (16 patients).

"After a median follow-up of 17.3 months, MGN1703 prolonged profession-free survival from the start of induction as well as start of maintenance therapy, including four patients with sustained progression-free survival who are still on treatment," Prof Schmoll says.

A pre-planned analysis of immune cell populations showed that the activation of a particular subset of immune system cells, called Natural Killer T Cells, appeared to potentially predict which patients might benefit, Prof Schmoll said.

"We saw a significant increase of CD14+CD169+ monocytes in all but one of the MGN1703 treated patients but none of the placebo patients, which indicates the drug is having a biological effect," he said.

"These data, presented at the 15th ESMO World Congress on Gastrointestinal Cancer for the first time, are showing a highly interesting trend which should be followed-up and confirmed in a larger study," Prof Schmoll said.

Since treatment with immunotherapeutic drugs such as MGN1703 needs time to take effect, patients who have a lower tumour burden and a response to prior chemotherapy might be more likely to have a benefit of the treatment with MGN1703, Prof Schmoll said.

"The evidence we are presenting at the 15th ESMO World Congress on Gastrointestinal Cancer is the first to show an immune cell population that might also help identify patients with greater benefit from MGN1703. There is mounting evidence that patients who achieve a

response with immunotherapy seem to have a very prolonged disease control. A large confirmatory trial is needed to confirm these interesting findings."

Commenting on the findings, ESMO spokesperson Michel Ducreux, Head of the Gastrointestinal Unit at the Institut Gustave Roussy, Villejuif, France, said the new results are supporting the concept for this approach.

"This is an interesting and somehow promising drug which represents a new concept of maintenance therapy with immunomodulation," he said. "The results in terms of progression-free survival and response were consistent, however based on a very small number of patients, and needs follow up and confirmation in a definitive confirmatory trial. "

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