Ginger 'could halt bowel cancer'

Ginger may protect against bowel cancer, scientists have claimed.

Test showed gingerol - which gives ginger its flavour - could slow the growth of human tumours in mice.

Plants from the ginger family have been used for thousands of years, and have been reported to have anti-cancer properties.

A second study presented to the American Association of Cancer Research showed a relative of mint could slow prostate cancer.

"These results strongly suggest that ginger compounds may be effective chemopreventive and/or chemotherapeutic agents"

Dr Ann Bode, University of Minnesota

Researchers from the University of Minnesota's Hormel Institute in Austin, fed half a milligram of [6]-gingerol to mice genetically engineered not to have an immune system three times a week before and after they were injected with human bowel tumour cells.

Other mice were injected with the tumour cells -- but were not given the gingerol.

Tumours were allowed to grow until they reached a size of one cubic centimetre (0.06 cubic inch), after which the mice were put to sleep.

'Anti-cancer activity'

After 15 days, 13 tumours of a measurable size had appeared amongst the control mice, but only four amongst the mice given the gingerol.

By day 28, all the mice in the control group had measurable tumours, but it took 10 more days for all but one of the gingerol group to develop measurable tumours.

By day 49, all the control mice had been killed because they had developed tumours of one cubic centimetre or more, but 12 of the gingerol mice were still alive and their average tumour size was about half the maximum allowable size.

Dr Ann Bode, who led the research, said: "Plants of the ginger family have been credited with
therapeutic and preventive powers and have been reported to have anti-cancer activity.

"The substance called [6]-gingerol is the main active compound in ginger root and the one that
gives ginger its distinctive flavour."

She added: "These results strongly suggest that ginger compounds may be effective
chemopreventive and/or chemotherapeutic agents for colorectal carcinomas."

Further studies are planned.

Human benefits

In the second study, researchers from Union College in Nebraska looked at the properties of
the Chinese herb *Scutellaria barbata* (SB), which is related to mint.

It is traditionally used to treat illnesses including cancers of the liver, lung and rectum.

The researchers either gave mice, who did not have immune systems, either eight milligrams a
day of extract of SB, 16 milligrams or a dummy version.

In the dummy group, significant tumours had developed by 19 weeks of age, and by 32 weeks,
all of these mice had palpable prostate tumours.

By comparison, 20% and 30% of the mice in the 8 mg and 16 mg SB groups, respectively, were
free of tumours.

At 27 weeks, fewer than 30% of the animals who were not given SB were free of tumour-free,
compared to 50% and 70% in the low and high-dose groups respectively.

Dr Brian Wong, who led the study, said: "We are finding that, in this case, the therapeutic value
of natural herbs is presenting itself as clinically valid.

"As we further study Scutellaria barbata, we hope to find the same benefits against prostate
cancer in human models."

Henry Scowcroft, a science information officer with Cancer Research UK, which is helping fund
a Europe-wide study into diet and cancer, said: "We know that what we eat affects our risk of
developing cancer, particularly bowel cancer, and it’s estimated that a third of all cancers may
be linked to diet.

"The results of the [6]-gingerol study are interesting, and hint that it is a worthy candidate for
further investigation.

"The studies now planned by the team should go some way towards revealing whether the
compound can have any clinical use in bowel cancer treatment and prevention."

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