

Green tea reduces prostate risk

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Green tea is back in the news again after a new study showed that men at a high risk of contracting prostate cancer had their risk slashed after taking green tea catechins for a year.

The study - whose results were made public yesterday at the 96th Annual Meeting of the American Association for Cancer Research - found that after a year's oral administration of green tea catechins (GTCs), only one man in a group of 32 at high risk for prostate cancer developed the disease, compared to nine out of 30 in a control.

“Numerous earlier studies, including ours, have demonstrated that green tea catechins, or pure EGCG (a major component of GTCs), inhibited cancer cell growth in laboratory models,” said Dr Saverio Bettuzzi, who led the Italian research team. “We wanted to conduct a clinical trial to find out whether catechins could prevent cancer in men. The answer clearly is yes.”

The researchers said that earlier studies demonstrated primarily that green tea catechins were safe for use in humans, while they have newly identified that EGCG targets prostate cancer cells specifically for death, without damaging the benign controls.

And added that they had identified Clusterin, the most important gene involved in apoptosis, or programmed cell death in the prostate, as a possible mediator of catechins action. “EGCG induced death in cancer cells, not normal cells, inducing Clusterin expression,” said Bettuzzi.

The patients used in the study were men aged between 45 and 75 with high-grade prostatic intraepithelial neoplasia – premalignant lesions that presage invasive prostate cancer within one year in nearly a third of cases and for which no treatment was given. Of the 62 volunteers, 32 received three tablets per day of 200 mg GTCs, while the remainder was given a placebo. The researchers carried out follow-up biopsies after six and 12 months. Only one case of prostate cancer was diagnosed among those receiving 600 mg daily of GTCs, while nine cases were found in the untreated group. The 30 percent incidence rate among controls is consistent with previous findings, as was the absence of significant side effects or adverse reactions.

The 600 mg-per-day dosage of caffeine-free, total catechins (50 percent of which is EGCG) given to participants in the study was one or two times the amount of green tea consumed daily in China, where 10 to 20 cups a day is normal, said the scientists. Bettuzzi concluded by suggesting that green tea catechins could be used as a prophylactic against prostate cancer in men believed to be at higher risk, such as the elderly, African-Americans, and those with a family history of prostate cancer.