Tea Polyphenols Provide Some Parkinson’s Relief  

**BY DAMIAN McNAMARA**

**FROM THE WORLD FEDERATION OF NEUROLOGY WORLD CONFERENCE ON PARKINSON’S DISEASE AND RELATED DISORDERS**

MIA MIE BACH — Green tea polyphenols taken daily provide minor symptomatic improvement for people with Parkinson’s disease, particularly those with more severe disease at baseline, according to findings in a 12-month study. However, the green tea did not provide any disease-modifying effect.

The study lends some confirmation to observations in China of a dose-dependent protective effect of tea drinking against Parkinson’s disease, Dr. Pui Chan reported at the congress.

The mechanism that could account for green tea’s effects is unknown, but green tea is rich in flavonoids, which make up 30% of its dry weight. In addition, the most abundant compound in green tea, epigallocatechin gallate, protects against toxins in animal models and “may down-regulate expression of pro-apoptotic genes,” Dr. Chan said.

To determine the efficacy of green tea polyphenols for slowing progression of Parkinson’s disease, he and his colleagues conducted a randomized, double-blind, placebo-controlled, and delayed-start study. They enrolled 410 untreated people with Parkinson’s disease at 32 Chinese Parkinson Study Group sites. Patients were randomized to take either 0.4, 0.8, or 1.2 g of green tea polyphenols daily, or placebo. At 6 months, the placebo group switched to 1.2 g of green tea polyphenols daily as well. Two cups of green tea typically contain about 300 mg of polyphenols, Dr. Chan noted.

Patients were assessed in-person at baseline and at 3, 6, and 12 months. They also kept a tea consumption diary. Change in Unified Parkinson Disease Rating Scale (UPDRS) score was the main outcome. Although a significant improvement in UPDRS scores was observed at 6 months for patients in each dosage group, they were no longer significantly different at 12 months compared with placebo.

Although green tea abstract was safe and well tolerated, there was “no obvious disease-modifying effect seen,” said Dr. Chan, director of the Beijing Institute of Geriatrics and Department of Neurology, Xuanwu Hospital of Capital University of Medical Sciences, Beijing.

Optimal Screen for Early Parkinson’s Still Elusive  

**BY DAMIAN McNAMARA**

**FROM THE WORLD FEDERATION OF NEUROLOGY WORLD CONFERENCE ON PARKINSON’S DISEASE AND RELATED DISORDERS**

MIA MIE BACH — Widespread screening for early Parkinson’s disease with olfactory testing followed by neurologic imaging holds promise but is not yet practical, based on studies that have revealed the limitations of each method.


“However, olfactory testing has not garnered widespread adoption because it lacks sufficient specificity for population-based screening,” Dr. Henk W. Berendse said at the congress. He and others still have potential for advers effects, it is believed that the mechanism that could account for the green tea’s effects is unknown, but green tea is rich in flavonoids, which make up 30% of its dry weight. In addition, the most abundant compound in green tea, epigallocatechin gallate, protects against toxins in animal models and “may down-regulate expression of pro-apoptotic genes,” Dr. Chan said.

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In a subsequent presentation at the meeting, Dr. Andrew D. Siderowf of the neurology department at Pennsylvania Hospital in Philadelphia described the population screening for Parkinson’s disease a ‘numbers game.’

The incidence of Parkinson’s disease is low, so the number of potentially identifiable cases in a population at any given time also is low, he said.

In 2007, the worldwide prevalence of the disease was estimated to be between 4.1 million and 4.6 million (Neurology 2007;68:384-391).

Dr. Berendse calculated that “if you expect to detect 123 patients in the premotor phase of Parkinson’s disease, the number of individuals would be between 1,600 and 7,000 individuals would have to undergo SPECT scans. Assuming a 10% prevalence of hyposmia, we would need to screen 70,000 individuals.”

The 10% prevalence of hyposmia is based on a study by researchers in which 50- to 75-year-old relatives of patients with idiopathic Parkinson’s. All of the relatives had olfactory testing, and the 40 who tested positive also had nasal 10-25beta-CIT SPECT scanning. Hyposmia in first-degree relatives was associated with the risk of developing Parkinson’s disease within 2 years (Ann. Neuroul. 2004;56:173-181).

Dr. Berendse and Dr. Siderowf had no relevant financial disclosures.