Gene Polymorphism Linked to Depression in CHD

Vienna — Patients with coronary heart disease who carry the short allele of the serotonin transporter gene have significantly higher rates of major depression and perceived stress than do those who carry the long allele, Dr. Christian Otte said at the annual congress of the European College of Neuropsychopharmacology.

"Since both depression and higher nor-epinephrine values have been associated with worse cardiac outcome, this might be a mechanism by which carriers of the short allele of the serotonin transporter gene might be at greater risk to suffer from cardiac events," explained Dr. Otte, a psychiatrist at University Hospital Hamburg-Eppendorf (Germany).

The Heart and Soul Study is an ongoing prospective cohort study based at the University of California, San Francisco, and involving 1,024 patients with CHD. The aim of the study is to shed new light on the association between depression and cardiovasculardisorders. For purposes of a genetic study of serotonin transporter gene polymorphism, Dr. Otte restricted the analysis to the 573 whites, the largest racial group in the study. Of this group, 19% were homozygous for the s/s genotype, 52% were s/l, and 31% were l/l.

The prevalence of current major de-pression as assessed by the Computerized Diagnostic Interview Schedule was 25% among participants carrying an s allele, a significantly higher rate than the 17% in l/l subjects. After statistical adjustment for age and gender, CHD patients who had an s allele for the serotonin transporter gene had a 60% increased rate of major depression. They also were 60% more likely to score in the moderate to high range for perceived stress, as reflected in a score greater than 5 on the Perceived Stress Scale.

Moreover, s allele carri-ers had a mean 24-hour nor-epinephrine excretion of 55.6 mg/day, compared with 50.2 mg/day in l/l patients, and they were 70% more likely to fall within the top quartile for 24-hour nor-epinephrine.

Dr. Otte said his re-search was inspired by a "classic" study of con-ducted by investigators at King’s College Lon-don, who demonstrated that carriers of one or two copies of the s allele who experienced stress-ful life events were much more likely to develop depression than were l/l individ-uals with a comparable degree of life stress (Science 2003;301:586-9).

The Heart and Soul Study investigators reasoned that a chronic debilitating medi- cail sickness Research and Education Founda-tion, and NARSAD: The Mental Health Research Association.

Prevalence of Current Major Depression In Coronary Heart Disease Patients

25%

17%

Have an s allele Are l/l genotype

Note: Based on data for 557 whites. Depression was assessed by the Computerized Diagnostic Interview Schedule.

Source: Dr. Otte

Increased Mortality Seen in Those With Changes in Sleep Duration

Both too much sleep and not enough sleep appear to be associated with increased mortality, according to a new longitudinal study.

Sleeping less than 6 hours per night or more than 9 hours per night was associated with almost twice the mortality risk of sleeping 6-8 hours per night, according to an analysis of sleep data from a prospective cohort study of more than 10,000 British civil servants.

The findings were recently presented at a meeting of the British Sleep Society, and the research article has been accepted for publication in the journal Sleep.

The investigators found that a decrease in the amount of time slept was associated with increased mortality from cardiovascular causes. An increase in sleep time was associated with an excess of mortality from all other causes, according to Jane Ferrie, Ph.D., of University College London, and her colleagues.

Previous studies have reported a U-shaped relationship between time spent sleeping and mortal-ity, the investigators said. What has not been looked at by a sleep study before is the effect on the change in sleep patterns might have.

The researchers examined sleep data collected from British civil service employees aged 35-55 years who were enrolled beginning in 1985 in a long-term study known as Whitehall II. Baseline sleep duration data were available for 9,781 sub-jects who were interviewed in 1985-1988, while follow-up data were available for 7,729 who were in-terviewed again in 1992-1993. Mortality data were available through September 2004.

After adjustment for factors such as age, sex, smoking status, body mass index, cholesterol, and physical activity, those Whitehall II participants who reported sleeping 5 hours or less a night at the first interview had a hazard ratio of death from all causes of 1.24, relative to those who slept 7 hours per night. Those who slept 9 hours or more had a fully adjusted hazard ratio of 1.54.

The fully adjusted hazard ratios of all-cause mortality were slightly higher for those who reported sleep for 5 hours or less or 9 hours or more at the second interview, 1.78 and 1.95, respec-tively. The risk of death due to cardiovascular causes was relatively greater for those who slept less after the baseline period than for those who slept more.

Participants who slept less than 6-8 hours a night at the first interview to less than 6 hours at the second interview had a fully adjusted hazard ratio of mortality from cardiovascular cause of 2.04, compared with 1.22 for those who slept more. Those whose sleep increased from 7-8 hours at the first interview to more than 8 hours at the second interview had a fully adjusted hazard ratio of mortality from noncardiovascular causes of 2.06, compared with 1.44 for those who slept less.

Investigators found a positive association between marital status and sleep duration. Married women were more likely to sleep longer, while married men were more likely to average 7-8 hours a night of sleep per night.

The connection between sleep duration and body mass index wasn’t as clear cut. At the Whitehall II study’s baseline, higher BMI was associated both with short and long sleep duration in women, but only with short sleep duration in men. By 1992-1993, BMI and sleep duration showed no associa-tion in women, but both short and long sleep du-urations were associated with higher BMI in men.

"Patients reporting a decrease in sleep should be regarded as higher risk populations for cardiovas-cular and all-cause mortality," according to the inves-tigators. Advising patients who may sleep too long to curtail their sleep should “at least be con-sidered,” the investigators wrote.

CBT Shows Promise for Irritable Bowel Syndrome

By Bruce Jancin

Vienna — Irritable bowel syndrome can be conceptualized as an anxiety disorder—and, as such, responsive to cognitive-behavioral therapy, according to Dr. Sergey Andreewitch.

“Core symptomatology of IBS is clearly physiological, but the cause of suffering and severe loss of function affecting many patients is better ac-counted for by the catastro-phizing appraisal of symptoms and the related avoidance be-havior,” Dr. Andreewitch said at the annual congress of the Euro-pean College of Neuropsychopharmacology.

A program of cognitive-behavioral therapy (CBT) target-ing the negative evaluation of GI symptoms and resultant dys-functional avoidance behaviors associated with IBS brought substantial improvement to par-ticipants in his pilot study. Next, Dr. Andreewitch, who is affili-ated with the Karolinska Insti-tute, Stockholm, plans to de-velop the treatment program into an Internet-based inter-vention.

He reported on 13 consecu-tive women with a mean age of 32 years and an 11.5-year histo-ry of IBS who had been referred for CBT from Stockholm-area GI clinics. The treatment pro-gram involved a 2-hour session weekly for 10 weeks, with four or five patients per group. The therapeutic strategy was mod-eled on well-established CBT programs for a variety of anxiety disorders.

As is typical in IBS, psychiatric comorbidity was common. Nine of the 13 patients met diagnos-tic criteria for a specific phobia, panic disorder, generalized anxiety disorder, or dysthymia.

The psychotherapeutic inter-vention showed substantial effi-cacy. Scores on the daily patient-rated GI Symptoms Checklist of abdominal pain, tenderness, bloating, diarrhea, and consti-pation dropped from a baseline mean of 31.4 to 17.2 at conclu-sion of the CBT program and remained there at reassessment 4 weeks later.

Similarly, mean scores on the Sheehan Disability Scale plummeted from 13.2 to 3.8, while Montgomery-Asberg Depres-sion Rating Scale scores dropped from a baseline of 12.7 to 6.8.

These outcomes compare quite favorably with conven-trional treatments, which typi-cally are only moderately effec-tive. These treatments include modulating, agents, anal-gesics, antidepressants, and dietary restriction, Dr. Andreewitch continued.

The etiology of IBS is poorly understood. It is second only to the common cold as a cause of work absences, he noted.