Growth Hormone Replacement Therapy Appears Safe in Long Term

BY MIRIAM E. TUCKER
Senior Writer

LISBON – Rates of deaths, cancers, and intracranial tumor growth do not appear to be increased by growth hormone replacement therapy in adults, Mark L. Hartman, M.D., reported at the 12th International Congress of Endocrinology.

Most studies demonstrating that growth hormone (GH) therapy is safe and effective in adults have not exceeded 18 months in duration. In contrast, the prospective, observational Hypopituitary Control and Complications Study is analyzing the long-term outcome of treatment with subcutaneous somatropin (rDNA origin) (Humatrope), said Dr. Hartman of Eli Lilly and Co., Indianapolis.

In an interim analysis of 2,429 U.S. GH-deficient patients followed for a mean of 2.3 years, 1,988 were treated with growth hormone, and 441 were not. Because treatment allocation was by patient and physician decision and not by randomization, there were several baseline differences between the groups, Dr. Hartman noted.

The untreated group was older than the treated group (55 vs. 46 years, respectively), had a lower mean body mass index (30 vs. 31), included more males (62% vs. 56%), had a longer smoking history (9 vs. 7 years), and had a higher proportion of pituitary tumors that were macroadenomas (87% vs. 75%). The untreated patients also had higher rates of preexisting hypertension (33% vs. 25%), hyperlipidemia (50% vs. 42%), diabetes mellitus (15% vs.8%),coronary artery disease (12% vs.6%), and visual impairment (34% vs. 27%).

This selection bias was eliminated in analyzing adverse events by dividing the groups into five quintiles balanced for baseline differences.

Deaths were reported in 1.7% of the 1,988 GH-treated patients and in 2.9% of the 441 untreated patients, which was not statistically different when the baseline differences were controlled for. Cardiac and cerebrovascular disease was the most commonly reported cause of death, accounting for 36% of deaths in the treated group and 67% of those in the untreated group for whom the cause was specified.

The proportion of patients with treatment-emergent adverse events related to benign or malignant neoplasms did not differ significantly between the GH (8.1%) and the untreated (10%) groups, nor did serious adverse events related to cancers, which occurred in 1.6% of the treated and 2.7% of the untreated patients, Dr. Hartman reported.

Growth or recurrence of a previously diagnosed pituitary adenoma was reported in 2.5% of 967 GH-treated patients and 4% of 273 of the untreated patients. . Among those with histories of other intracranial tumors, growth or recurrence was reported in 3.8% of 344 treated patients and in 4.5% of 66 untreated patients. Neither of these differences was significant, he noted.

New intracranial tumors occurred in four treated and no untreated patients. Two were associated with prior intracranial radiation. ■