SPHENOPALATINE GANGLION STIMULATION IN THE PATHWAY CH-1 STUDY REDUCES HEADACHE BURDEN BEFORE AND AFTER SUSTAINED PERIODS OF CLUSTER ATTACK REMISSION

J.M. Láinez[1], A. May[2], C. Gaul[3], J. Schoenen[4], A. Goodman[5], A. Caparso[5], R. Jensen[6]

[1]*Hospital Clinico Universitario, Universidad de Valencia, Department of Neurology, Spain*

[2]*Department of Neurology, Universitätsklinikum Hamburg-Eppendorf, Germany*

[3]*Department of Neurology, University Duisburg-Essen, Germany*

[4]*Department of Neurology, CHR de la Citadelle, Liège University, Belgium*

[5]*Clinical Research, Autonomic Technologies, Inc., USA*

[6]*Danish Headache Center, Glostrup Hospital, Denmark*

agoodman@ati-spg.com

BACKGROUND: The ATI Neurostimulation System applies electrical stimulation to the sphenopalatine ganglion (SPG) to relieve pain associated with cluster headache (CH). Data are presented from Pathway CH-1 study participants who experienced remission from CH attacks.

AIM: To understand acute and/or preventive benefits of SPG stimulation in patients that have experienced remission from CH attacks.

METHODS: 33 medically refractory chronic CH-patients participated in the Pathway CH-1 study from pre-implant through 18 months post-implant, with an average CH duration of 10.6 (range 5-17) years. Patients reporting no cluster attacks during the previous 4 weeks were considered to have experienced remission. HIT-6 was used to evaluate headache disability.

RESULTS: 9 patients achieved remission during the study. Pain-free periods lasted an average of 111 days (range 28-268) and began 150 days (range 42-303) into the study. Patients achieved pain relief or freedom in 50.7% (77/152) and 57.3% (110/192) of evaluable attacks before and after remission, respectively. HIT-6 scores improved 16% from baseline and 4X the clinically significant disability improvement. After remission, 5 patients stopped use of acute medications and 4 had clinically significant reductions in their number and/or dose of or remained off preventive medications. All 9 patients indicated they find SPG stimulation useful and would recommend the therapy to other patients.

CONCLUSION: A subset of CH patients experience long-lasting remission and improved quality of life with SPG stimulation. SPG stimulation may be an effective treatment for medically refractory episodic CH patients.