**EHMTC-0306**
**POSTER SESSION C**

## PATHWAY REGISTRY 12 MONTH INTERIM RESULTS – LONG-TERM THERAPEUTIC EFFECTIVENESS OF SPHENOPALATINE GANGLION (SPG) STIMULATION FOR CLUSTER HEADACHE (CH)

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**Background:** The Pathway Registry evaluated sphenopalatine ganglion (SPG) stimulation for cluster headache (CH). Previously, in a randomized, double-blind, multicenter study (Pathway CH-1), 68% of patients experienced clinically significant improvements. We evaluated long-term therapeutic effectiveness of SPG stimulation.

**Method:** Acute pain response following SPG stimulation and attack frequency reduction were analyzed at 12 months following SPG microstimulator insertion. Acute effectiveness is relief/freedom from $\geq$moderate pain, or freedom from mild pain. Therapeutic responders achieved acute effectiveness in $\geq$50% of attacks by end of stimulation, or $\geq$50% attack frequency reduction versus baseline. Patients were similarly evaluated for $\geq$75 and $\geq$30% therapeutic response.

**Results:** Through March 2016, 119 patients were enrolled. 80 patients (74 chronic CH, 6 episodic CH) had a microstimulator inserted and progressed through the 12 month study visit ($374 \pm 31$ days post-insertion, range 322–475).

In these 80 patients (59 male, 21 female, age $46 \pm 12$ years), baseline attack frequency was $24.9 \pm 20.8$ attacks/week with severely CH impact (HIT-6: $64.0 \pm 6.9$). 66% (53/80) were therapeutic responders with a response of $\geq$50%. Frequency responders (43/80) reduced attack frequency by 86% ($26.5 \pm 23.2$ to $3.6 \pm 6.6$ attacks/week, $p < 0.001$). Acute responders (25/80) achieved effective therapy in 87% of attacks (4212/4863) by end of stimulation.

46% (37/80) of patients experienced a very strong therapeutic response of at least 75%; 75% (61/80) experienced at therapeutic response of at least 30%.

**Conclusion:** Therapeutic effectiveness of SPG stimulation in chronic medically refractory cluster patients (Pathway CH-1 trial) is confirmed in an open label registry of a large series of cluster patients through 12 months.

Conflict of interest
Disclosure statement:
AG and AC are employees of Autonomic Technologies, Inc.

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