



MIAMI
NEUROSCIENCE
CENTER
at Larkin®



EANS 2015
Technical Advances
in Neurosurgery



EANS 2015
Annual Meeting

Madrid, Spain
October 18 – 21, 2015

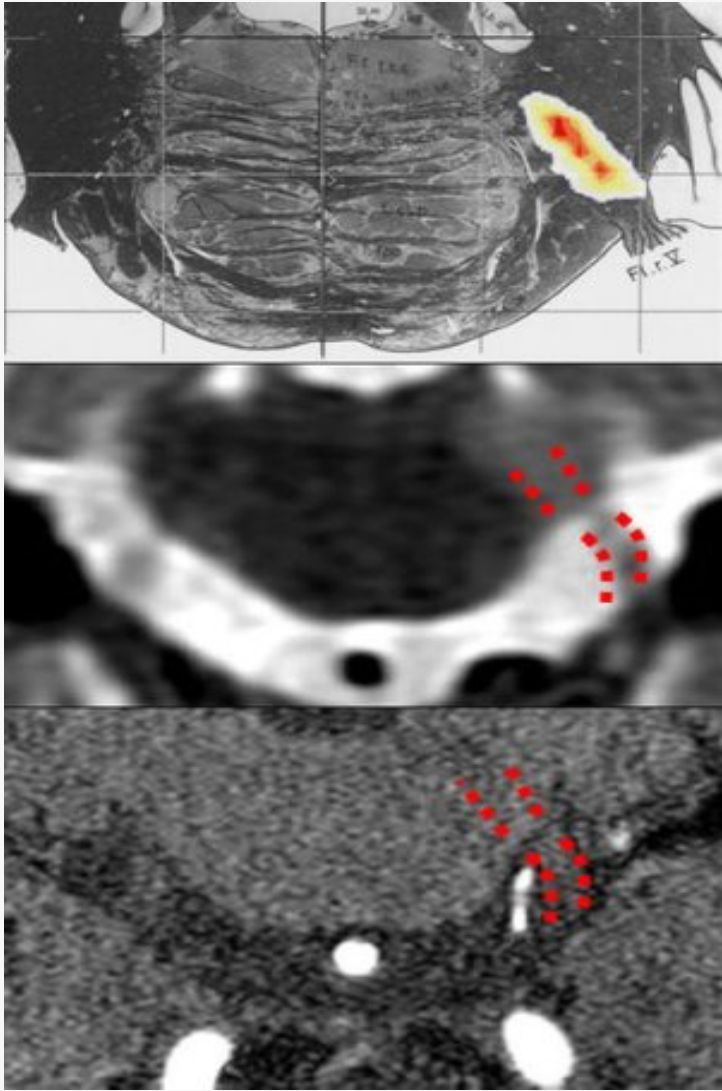


THE EUROPEAN ASSOCIATION
OF NEUROSURGICAL SOCIETIES


PROSPECTIVE, COHORT STUDY EVALUATING THE OUTCOMES OF PERCUTANEOUS BALLOON COMPRESSION IN THE MANAGEMENT OF SECONDARY TRIGEMINAL NEURALGIA IN MULTIPLE SCLEROSIS

PRESENTER: JOSE E VALERIO MD, FAANS, FAACS

*Authors: Andres M. Alvarez-Pinzon MD, PhD; Aizik L. Wolf MD, Alan A. Stein
BS, Jose E Valerio MD.*



Background

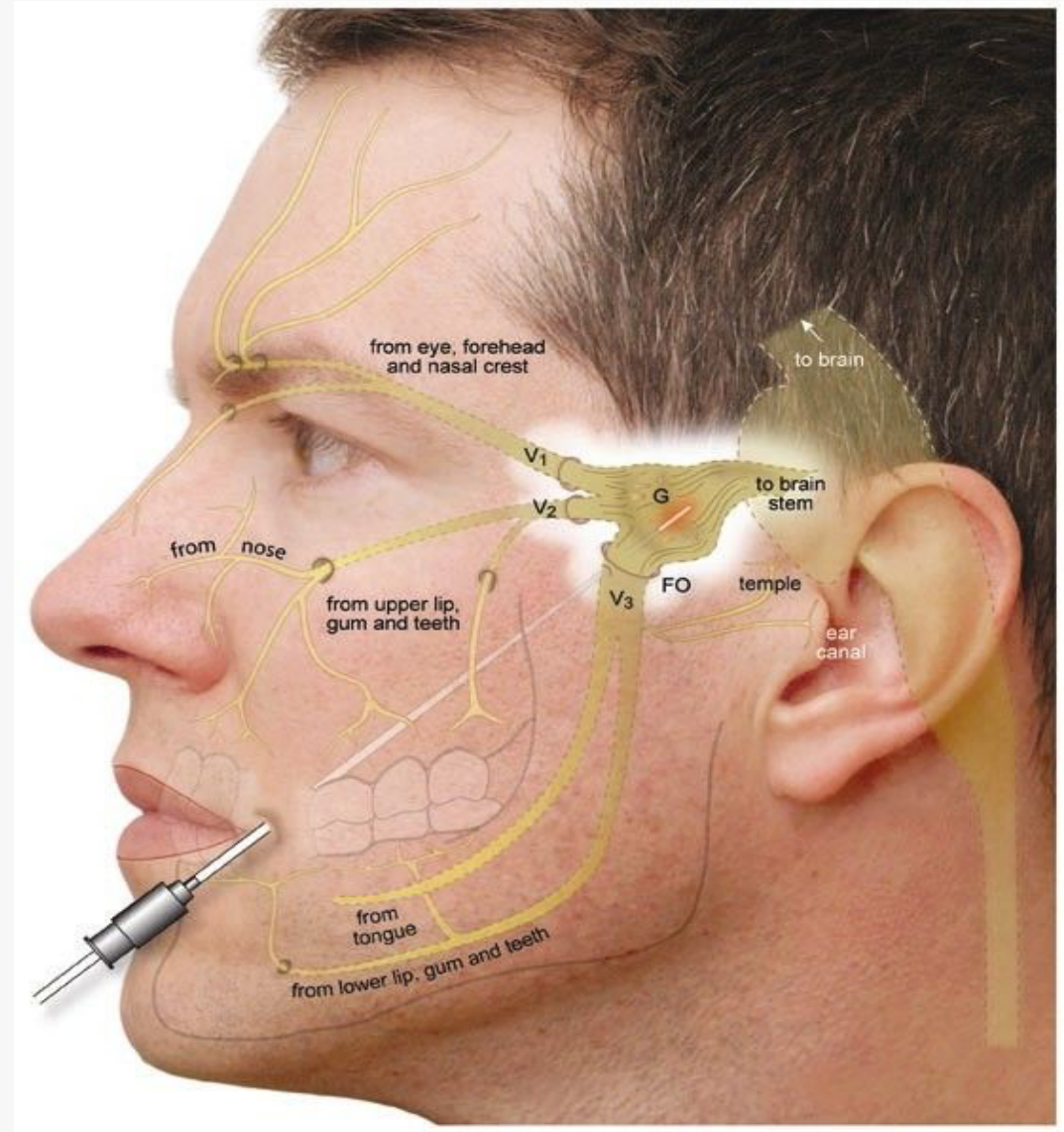
- The role of different procedures for the treatment of trigeminal neuralgia in patients affected by multiple sclerosis (MS) is under discussion and there are no clear indications in the literature.
 - The role of percutaneous balloon compression (PBC) has been poorly addressed so far.
 - There are no reports analyzing the factors potentially related to the prognosis in these patients.
 - We examined the role of PBC for the treatment of trigeminal neuralgia in MS patients and investigated the role of clinical and procedure-related factors in determining the prognosis of these patients.
- 

Clinical Research Design



- Prospective, Cohort Clinical Study. January 2010 and Dec 2014.
- Subjects with a diagnosis of MS and consequent trigeminal neuralgia were added.
- Demographic characteristics, operative details, and perioperative pain treatment data were collected.
- Primary end points included post operative pain relief, levels of carbamazepine, facial numbness, and complications.
- Continuous and categorical data were analyzed with the Wilcoxon rank-sum test, Pearson's chi-square test, or Fisher's exact test, as appropriate.

Technique



Technical Advances in Neurosurgery

Madrid, Spain
October 18 – 21, 2015

EANS 2015

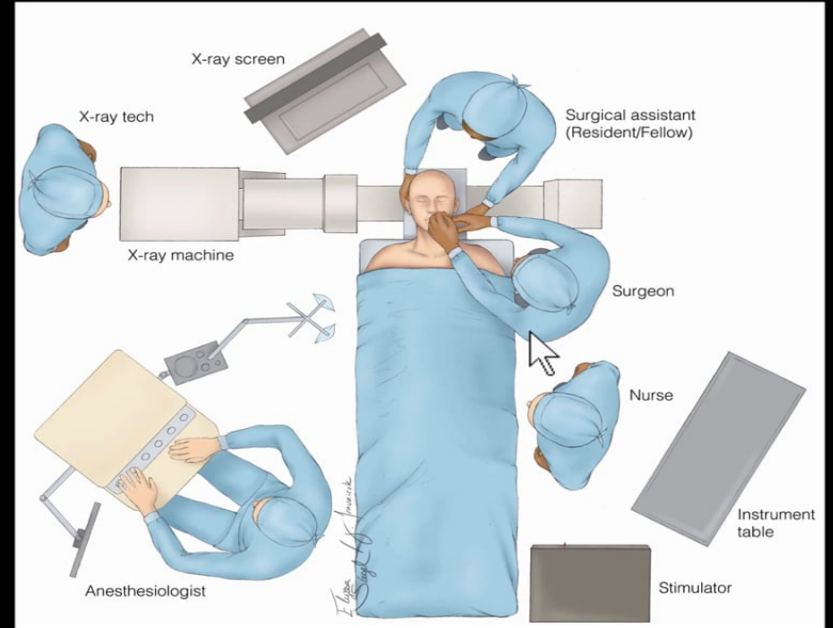
Annual Meeting



EANS 2015
Technical Advances
in Neurosurgery



THE EUROPEAN ASSOCIATION
OF NEUROLOGICAL SOCIETIES

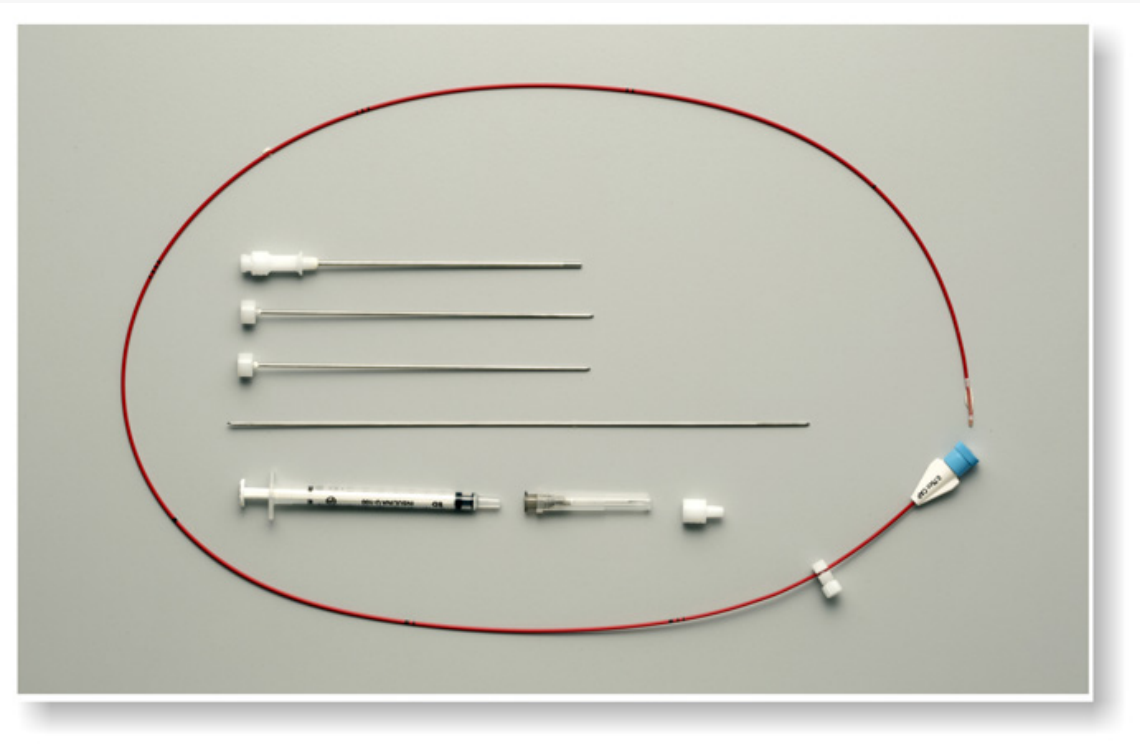






MIAMI
NEUROSCIENCE
CENTER

at Larkin

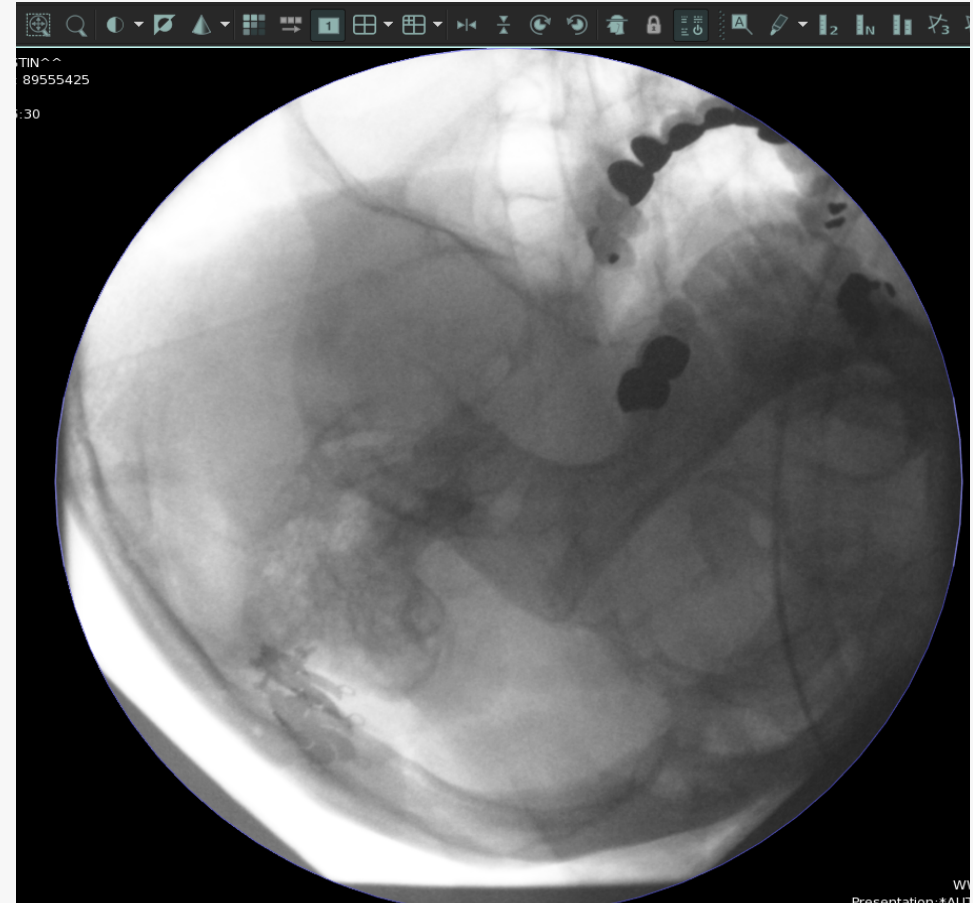
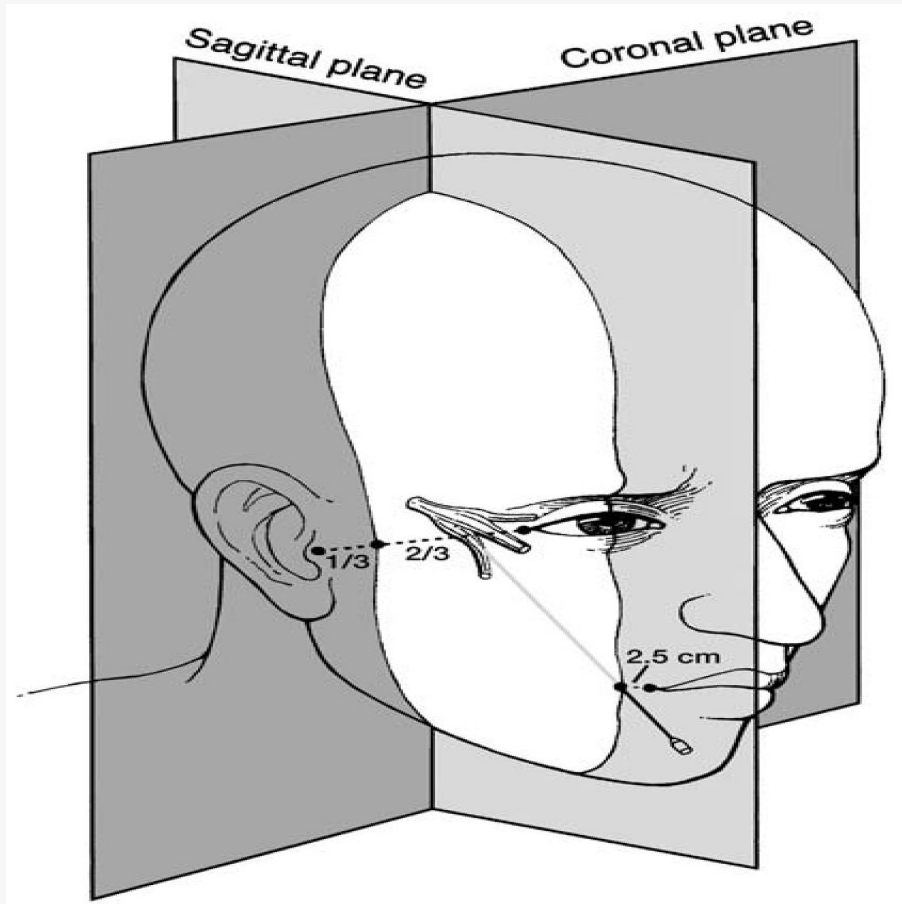




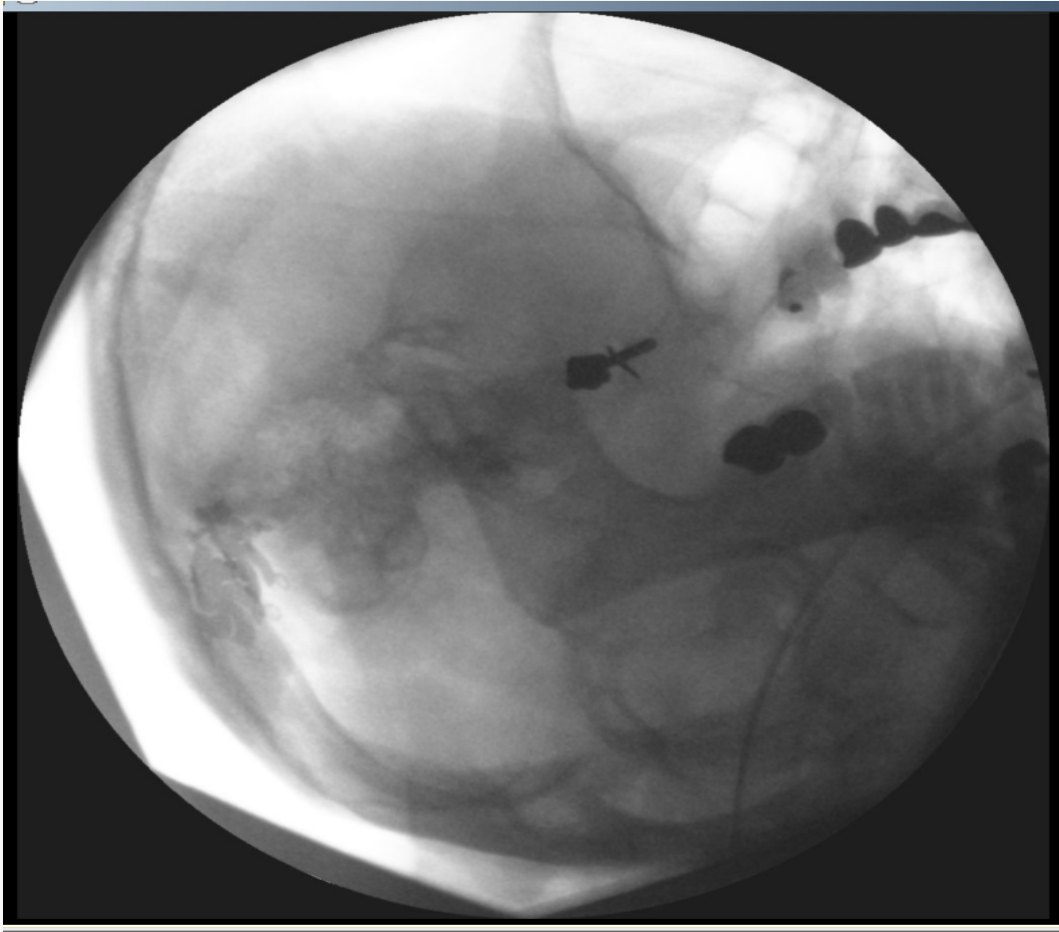
MIAMI
NEUROSCIENCE
CENTER
at Larkin



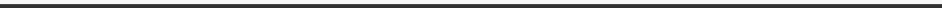
EANS2015

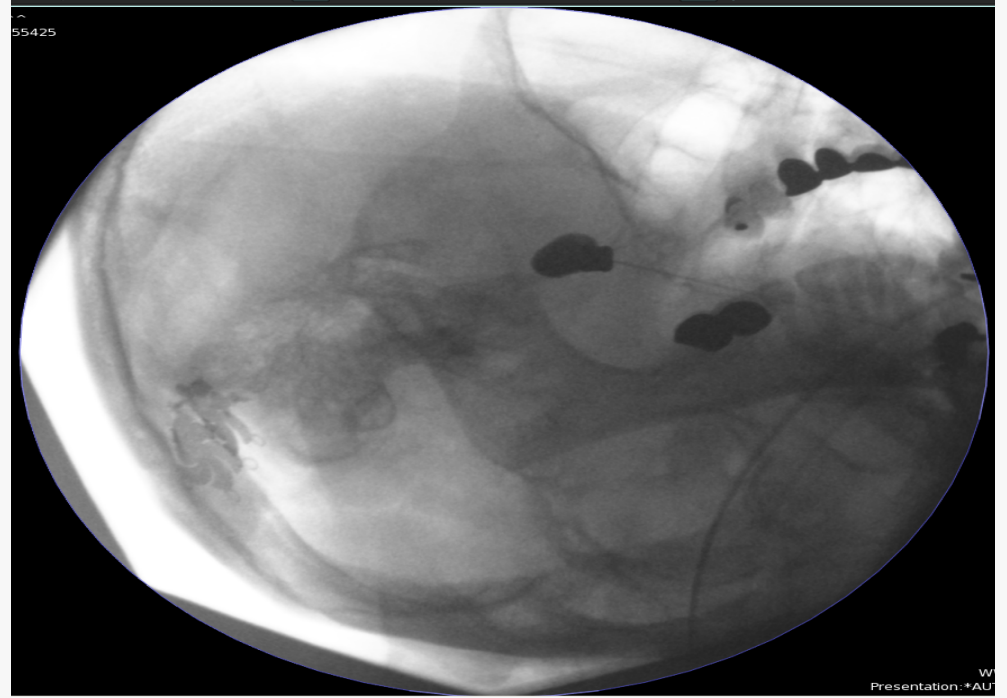
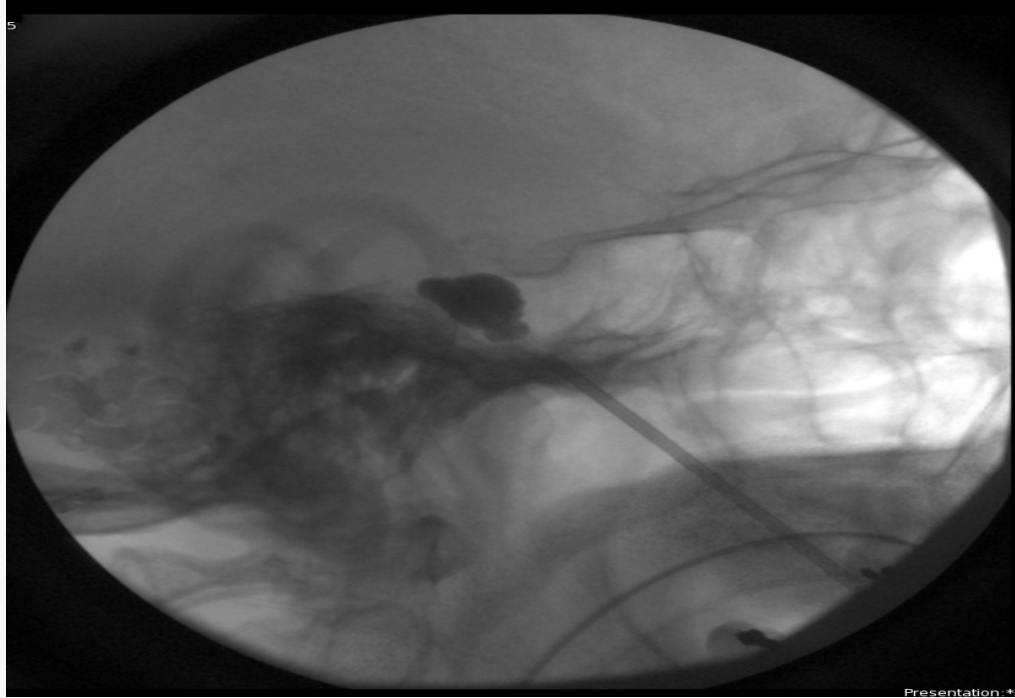


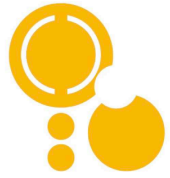




Presentation:*/





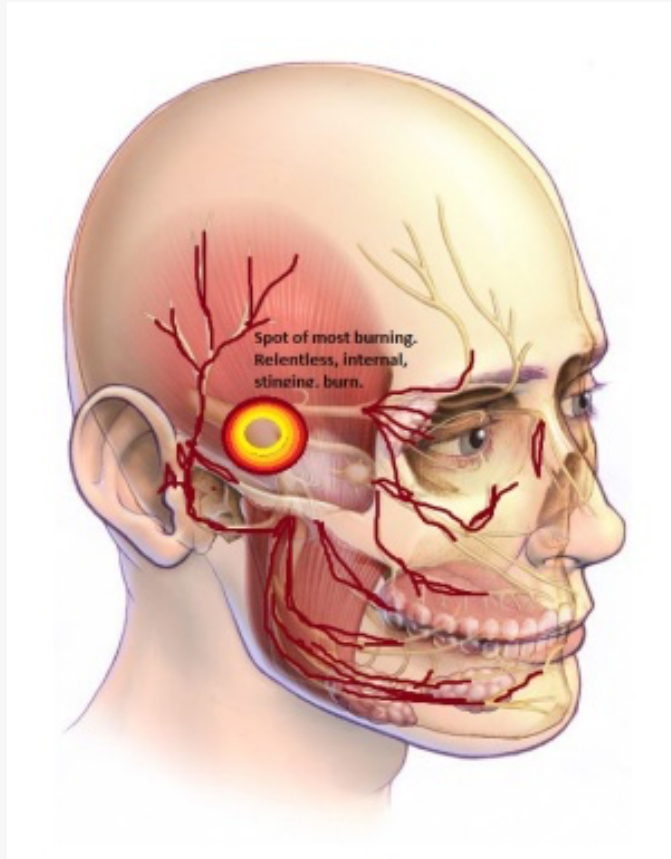


EANS 2015

Demographics

Patient Parameters	
Number of Patients	56
Age (years)	51.3 ± 7.4
Sex	
Female	43 (80%)
Male	13 (20%)
Body-mass index (kg/m ²)	28.1 ± 3.1
Carbamazepine Levels (mg/L)	6.5 ± 1
Operative side (left/right)	39/17
Values for continuous variables given as mean and standard deviation	
*Continuous variables analyzed using Wilcoxon rank sum test. Categorical variables analyzed using Chi-square test, unless otherwise noted.	
†Determined using Fisher's exact test.	

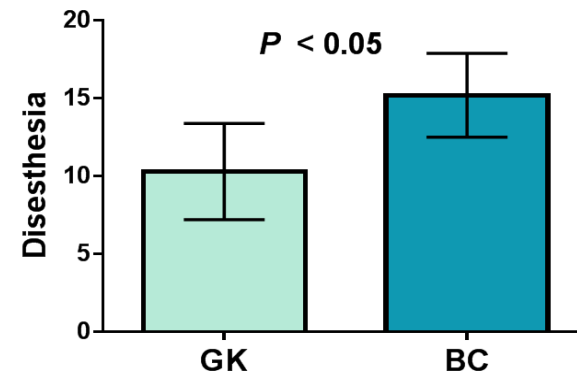
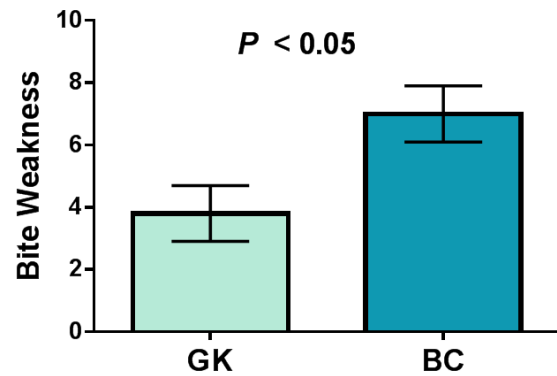
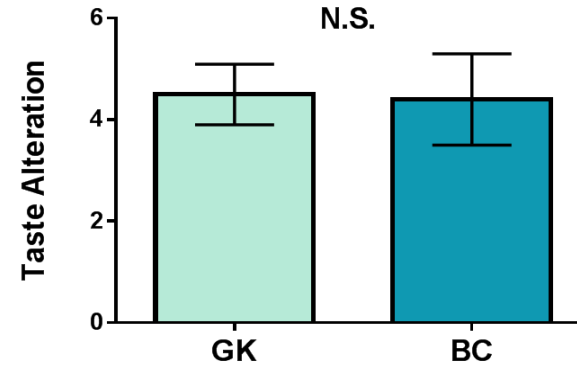
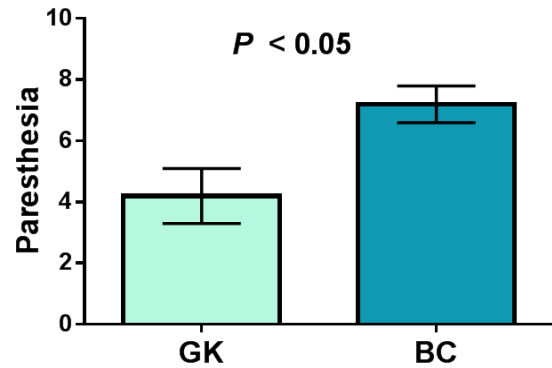
Outcomes



- The median post operative pain control was 76%.
- The mean calculated pain control = VAS scale at 2 weeks was less of 3/10 (76%.)
- Carbamazepine dropped in all cases.
- Most common side effects after procedure
- facial numbness 70%.
- The median interval of pain control was 10.3 months.
- The pain free percentage at 18 months was 45%



Patient-Related Outcomes	
Patient Parameters	Compression
Length of Stay (days)	1.0 ± 0.3
Pain level at 18 Months [†]	3.5 ± 1.5
Pain Level	
Preop	9 ± 1
Postop - 8 weeks	3±1
Postop-24 weeks	2.5 ± 1.5
Improvement 6 Months Period	6 ± 2



Neurosurgery. 2015 Aug;62 Suppl 1:197-8. doi: 10.1227/01.neu.0000467066.63940.0e.
**104 Viability of Second Gamma Knife Radiosurgery vs Percutaneous
 Retrogasserian Balloon Compression for Primary Trigeminal Neuralgia.**
Valerio JE, Alvarez-Pinzon AM, Coy S, Sanchez Gonzalez M, Wolf AL.

Conclusions



MIAMI
NEUROSCIENCE
CENTER
at Larkin



- PBC is a safe and effective technique to treat trigeminal neuralgia pain in MS patients.
 - In this patient population, the use of retrograsserian balloon compression can help in complex cases with previous surgery
 - Clinical and procedure-related factors may play a role in the prognosis of these patients.
 - We recommend the importance of patient selection to improve the outcomes using PBC in this type of population
-

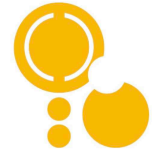


Questions?





MIAMI
NEUROSCIENCE
CENTER
at Larkin



EANS 2015

