INTRODUCTION

- One third of patients with epilepsy are refractory to medical treatment.
- Deep brain, Vagus, and trigeminal nerve stimulation provided promising results.
- To our knowledge, this is the first report demonstrating occipital nerve stimulation (ONS) was very successful in controlling intractable seizures.

CASE REPORT

- 35-year-old female with severe medically-resistant post traumatic seizure for 5 years.
- Patient also has chronic migraines and failed multiple treatment modalities.
- She had a successful ONS trial and implant with marked reduction of both frequency and severity of migraine headaches.
- The patient noticed that her seizures attacks stopped since the ONS implant.
- Interestingly; after 2 years of no seizures attacks and infrequent migraines, she started to develop seizures again without worsening migraines.
- Both ONS leads were migrated as documented by X-rays. The patient underwent leads revision with complete seizures resolution.
- The same scenario happened again 3 years later and the ONS leads were found to be migrated again. The patient underwent another revision and she had no seizures and only 1-2 migraines/month at 6-month visit.

DISCUSSION

- This case demonstrated a cause and effect relationship between ONS and seizures control.
- In both events; migration of the ONS leads had resulted in return of seizures attacks that was completely resolved with leads replacement.
- The return of chronic frequent migraines was not immediate (as seizures). It started few weeks after image-documented leads migration.
- The mechanism of the antiepileptic effects of ONS is not clear. A possible mechanism would be modulating the trigeminal system through the trigemino-cervical complex.

REFERENCES