

Vagus nerve stimulation (VNS) is an adjunctive treatment in iraqi patients with drug resistant epilepsy

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Background:

Despite the introduction of new antiepileptic drugs (AEDs) and advances in the surgical treatment of epilepsy, an important group of patients still remains uncontrolled by any of these methods. Vagus nerve stimulation (VNS) is an adjunctive treatment for those with drug resistant epilepsy. In addition to the reduction in seizure frequency, there is other variables need to be assessed for better determination of VNS efficacy like quality of life (QOL) improvement.

Aims of the study:

Evaluate the effectiveness of VNS, for Iraqi patients with drug resistant epilepsy, in reducing seizure frequency and improving QOL of these patients.

Method and Patients:

Forty-six patients of drug resistant epilepsy were retrospectively examined. they underwent implantation of a stimulator in Baghdad medical city during 2015, and with a follow-up of one year. they were 25 male and 21 females, and their ages at VNS implantation was ≥ 18 year old for 28 patients and between 11-17 year old for 18 patients. Analysis of seizure reduction (using McHugh classification) with the effect of demographic and clinical variables on it, and assessment of QOL (using QOLIE-35 and QOLIE-AD 48 scales) were done in this study. SSPS v.22 was used for the statistical analysis.

Results: The total well response rate (including class I and II and equal to reduction in seizure frequency $\geq 50\%$) was 58.7 % (27/46 patients), 6 cases became seizure free, and 6 cases reported no improvement, We also found that the factors of gender, age and predominant seizure type had clinical outcome effects. The mean seizure frequency and number of AEDs that used by the patients reduced. The mean of all domains and overall score of QOL scales improved and some domains had statistically significant improvement.

Conclusion: VNS is a safe, well-tolerated and effective treatment in reducing seizure frequency and improving QOL for patients with drug resistant epilepsy.

Key words: Vagus nerve stimulation, drug resistant epilepsy, quality of life.

Patients And Methods: This study is designed as a retrospective study to analyze the efficacy and tolerability of VNS Therapy in patients with drug resistant epilepsy. The study conducted at medical city in Baghdad/ Iraq. The surgical procedure performed during 2015 and all data are collected retrospectively during the follow up visits at 2016 in the epilepsy clinic of Baghdad Teaching Hospital, these data are collected from the patients, their families and their available medical records from baseline to 12 months after VNS implantation. Forty-six patients diagnosed as drug resistant epilepsy, according to ILAE criteria (6), and on VNS Therapy were interviewed and enrolled in this study.