

Should we preferentially use vagus nerve stimulation early in patients with both seizures and depression - our experience?

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Background and aim: Vagus nerve stimulation (VNS) is a viable treatment option in drug resistant epilepsy and depression. In patients with drug resistant epilepsy polytherapy is necessary that emphasizes greater incidence of side effects which further impair quality of life, on physical, psychosocial and neurocognitive level. Our study aimed to examine quality of life in patients with drug resistant epilepsy who had undergone VNS implantation. **Patients and methods:** The study included 27 patients with drug resistant epilepsy with implanted VNS – case group (14M, 13F; mean age 34.7 +/- 28.3 years) and 18 controls – patients with drug resistant epilepsy without implanted VNS (10M, 8F; mean age 45.2 +/- 30.8 years). The quality of life was examined using the questionnaires "Quality of life in epilepsy" (QOLIE-31 validated Croatian 1.0 version) and "Beck Depression Inventory I" (BDI I validated Croatian version). For statistical analysis nonparametric Mann-Whitney test for independent samples was used. The study was approved by the Ethical Committee of the University Hospital Centre Zagreb. **Results and conclusion:** The Mann-Whitney test showed significant difference in the QoLIE-31 score between the case and the control group ($p=0.041$). In the case group we have noticed that younger patients had lower score of QoLIE-31 and higher score of BDI-I then the older ones. Our results show positive influence on the quality of life and mood improvement following VNS implantation in patients with drug resistant epilepsy. VNS can be effective treatment when used early in patients with both seizures and depression.