Vagus nerve stimulation in epilepsy

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Vagus Nerve Stimulation (VNS) belongs to the palliative treatment group of epilepsy. It is aimed to reduce the seizures frequency and severity, but it is uncommon to get a patient seizure free on VNS therapy.

VNS therapy is delivered from an helicoidal electrode surgically placed around one of the vagus nerve in the neck. Left vagus nerve usually preferred, due to the lesser cardiac innervation it has.

VNS electrode is plugged into an implanted generator that can be telemetrically programmed. Surgery is about 2 hours time and present infrequent complications.

VNS therapy can reduce seizures by a 75% in about 30% of patients and by a 50% in almost 50% of them. Secondary effects are usually mild and consists mainly of hoarseness, cough, shortness of breath and paresthesias. They usually appear during stimulation and tend to diminish over time.

VNS is indicated in medically refractory seizures that are not amenable to surgical resection.

Biography

Albisua Sanchez Julio MD, PhD is Head of the Department of Neurosurgery of Fundación Jimenez Díaz in Madrid. He is Professor at the Medicine School of the Universidad Autonoma de Madrid. His epilepsy surgery program is one of the most active programs in Spain. He has authored several publications and book chapters, mainly about temporal lobe epilepsy. He is actually serving as Secretary of the Spanish Society of Functional Neurosurgery (SENFE), Vice-president of the Madrid Neurosurgical Society (SONCAM) and as President of the Spanish Brain Council (SBC-CEC).

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