Psychogenic nonepileptic seizures treatment

The aim was to conduct a pilot randomized controlled trial of a novel cognitive behaviorally based intervention for pediatric Psychogenic Nonepileptic Seizures(PNES) called Retraining and Control Therapy (ReACT).

Methods: Participants were randomized to receive either eight sessions of ReACT or supportive therapy, and participants completed follow-up visits at 7- and 60-days posttreatment. The primary outcome measure was PNES frequency at 7-days posttreatment. Eligibility criteria included children with video-EEG confirmed PNES and participant/parent or guardian willingness to participate in treatment. Exclusion criteria included substance use, psychosis, and severe intellectual disability. Forty-two patients were assessed for eligibility and 32 were randomized. ReACT aimed to retrain classically conditioned, involuntary PNES by targeting catastrophic symptom expectations and a low sense of control over symptoms using principles of habit reversal. Supportive therapy was based on the assumption that relief from stress or problems can be achieved by discussion with a therapist.

Results: Twenty-nine participants (Mage = 15.1 years, SDage = 2.5; 72.2% female; 57.1% Caucasian, 28.6% African American) completed 7-days postprocedures. For PNES frequency, the Wilcoxon Rank Sum test statistic was 273.5 yielding a normal approximation of $Z = 4.725$ ($P < 0.0001$), indicating a significant improvement in PNES frequency for ReACT at 7-days posttreatment compared to supportive therapy. Participants with PNES in the 7-days posttreatment were removed from the study for additional treatment, resulting in no 60-day follow-up data for supportive therapy.

Interpretation: ReACT resulted in significantly greater PNES reduction than supportive therapy, with 100% of patients experiencing no PNES in 7 days after ReACT. Additionally, 82% remained PNES-free for 60 days after ReACT. [1].

Patients with epilepsy and comorbid Psychogenic nonepileptic seizures (PNES) may benefit from VNS. It is unclear whether the benefit is conferred strictly from decreased epileptic seizure burden. The possible effect on PNES may be related to the known effect of VNS on depression. Further studies are necessary to elucidate the role of VNS in the treatment of PNES and possibly other psychiatric disease [2].

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Fobian AD, Long DM, Szaflarski JP. Retraining and control therapy for pediatric psychogenic non-epileptic seizures [published online ahead of print, 2020 Aug 3]. Ann Clin Transl Neurol. 2020;10.1002/acn3.51138. doi:10.1002/acn3.51138

2)
Vivas AC, Reitano CJ, Waseem H, Benbadis SR, Vale FL. An analysis of quality of life (QOL) in patients with epilepsy and comorbid psychogenic nonepileptic seizures (PNES) after vagus nerve stimulation (VNS). Epilepsy Behav. 2017 Jun 23;73:208-213. doi: 10.1016/j.yebeh.2017.05.035. [Epub ahead of print] PubMed PMID: 28651170.