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Mozart's music in children with drug-refractory epileptic encephalopathies**Coppola Giangennaro**
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Statement of the Problem: Mozart's sonata for two pianos in D major, K448, has been shown to decrease interictal EEG discharges and recurrence of clinical seizures in both adults and young patients. In this prospective, open-label study, we evaluated the effect of listening to Mozart's K448, according to the Tomatis method, on sleep quality and behavioral disorders, including auto-/hetero-aggression, irritability and hyperactivity, in a group of children and adolescents with drug-resistant epilepsy. In a further, prospective, randomized, open label study, the effect on seizure recurrence and quality of life parameters, of two different protocols of music therapy was compared in the same kind of patients.

Method: During the first study 11 outpatients, aged between 1.5 and 21 years, all suffering from drug-resistant epileptic encephalopathy associated with a severe/profound intellectual disability and cerebral palsy had to listen to a set of Mozart's compositions 2 h/day for 15 days for a total of 30 h. In the second trial, 19 patients with epileptic encephalopathies, aged between 1 and 24 years, were randomized to listen to Mozart's K448 for 2 h/day for 2 weeks or to a set of Mozart's compositions (Mozart's set).

Findings: In the first study, 2/11 patients had a reduction of 50-75% in seizure recurrence, and 3/11 a decrease of 75-89%. Overall, 5/11 patients (45.4%) had a $\geq 50\%$ reduction in the total number of seizures. In the second trial, 22% of the K448 group had a $\geq 75\%$ seizure decrease, compared with 70% of patients in the Mozart set group.

Conclusion: The present study seems to confirm that music therapy may be an additional, non-pharmacological, effective treatment for patients with refractory epileptic seizures in childhood. The Mozart' set of different compositions can be better accepted and effective than the K448.

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