

عنوان مقاله:

Is dopamine transporter gene effective on therapeutic response of methylphenidate in ADHD patients

محل انتشار:

مجله پزشکی بالینی، دوره 2، شماره 2 (سال: 1394)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Fatemeh Moharrari - *Psychiatry and Behavioral Sciences Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran*

Soheila Barabadian - *Psychiatry and Behavioral Sciences Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran*

خلاصه مقاله:

Attention-deficit/hyperactivity disorder (ADHD) is the most common neuropsychiatric illness, which affects about 5% of children worldwide. An 80% genetic background is responsible for ADHD due to its appearance in familial relationships. In addition, dopamine regulation in synaptic spaces, which have a central role in development of ADHD, is moderated by dopamine transporter neurotransmitter, which in turn is modulated by dopamine transporter gene named SLC6A3 or DAT1. Methylphenidate as the first line and most important prescribed medication for ADHD blocks dopamine transporter and increases the dopamine concentration in synaptic clefts. In theory, methylphenidate relay to dopamine transporter to play a role, and dopamine transporter synthesis is dependent on DAT1. This gene have 40 base pair in its 3'-untranslated region end that repeat from 3 to 11 times, with most frequent 9 and 10 repeats in human, forming several alleles in carriers including 9R and 10R and genotypes including 9R/9R, 10R/10R, 9R/10R. These genotypes, as the first suspected candidates, may explain why methylphenidate therapy is not sufficient some patients and how the side effects appear in some cases and not in all patients. Many studies have performed to investigate the association between responses to methylphenidate and genotypes and yet no consistency has occurred. This article has a rapid review on concerned literature.

کلمات کلیدی:

Attention-deficit/hyperactivity disorder, Methylphenidate, Polymorphism

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/970154>

