

Alice in Wonderland Syndrome as a potential side-effect in Attention Deficit Hyperactivity Disorder patients undergoing Methylphenidate treatment

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Madam, the Alice in Wonderland Syndrome (AIWS) is a unique neuropsychiatric disorder that affects the patient's perception of superficial sensory input, such as hearing, vision and touch, and the concept of time. There is also accompanied inability to distinguish relative sizes of objects, a phenomenon referred to as metamorphopsias. The said variation in perception can include, but not be limited to, objects appearing larger than life, macropsia, smaller than life, micropsia, closer than they are, pelopsia, or distant than reality, and teleopsia¹. The condition is named after comparable experiences of Alice, the protagonist in Lewis Carroll's Alice in Wonderland, the term being used for the first time by Dr. John Todd, which is why many studies alternatively refer to it as Todd's Syndrome².

In a recent ground-breaking study by Artémise Dugauquier et al. (2020), AIWS was an associated side-effect of prescribed methylphenidate to treat Attention Deficit Hyperactivity Disorder (ADHD) in a twelve-year-old boy. The case study was carried out to conclude that methodical modifications in medication dosage led to direct changes in AIWS-linked symptoms, thus strengthening the hypothesis³. ADHD is one of the most common chronic psychiatric disorders in children and often extends into adulthood⁴. Methylphenidate tops the list of licensed drugs to treat the condition, including lisdexamfetamine, dexamfetamine, atomoxetine and guanfacine.

This finding can have an immensely profound impact on Pakistan. Methylphenidate is a globally abused drug and a cross-sectional study conducted by Nismat Javet et al. (2019), confirmed its widespread abuse in medical colleges across Pakistan by medical students who, under academic and peer pressure along with the fear of subsequent underperformance, used the drug as a

stimulant, without professional diagnosis of ADHD (98% of the participants of the study were not ADHD patients)⁵. This, combined with stigmatized conversations on mental health, which shades conditions such as AIWS, can be of profound significance in misdiagnosing ADHD patients who might develop methylphenidate associated AIWS. Another vital factor that needs to be considered is the relatively weak grip of medical professionals on conditions such as AIWS which are already under-reported³ due to fear of breaching societal and cultural taboos, again significantly prevalent in typical Pakistani society. It is integral that physicians are cautioned against potential AIWS symptoms manifesting as side-effects of methylphenidate prescription so that ADHD patients can undergo effective symptom management and disorder treatment.

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