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Drug repositioning for the treatment of obsessive-compulsive disorder.

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Abstract: The Obsessive-compulsive disorder (OCD) is a common psychiatric disorder characterized by obsessions and compulsions. Obsessions are repetitive thoughts, intrusive unwanted, images or impulses that cause, fear or anxiety in the minds of oneself. The Compulsion is a repetitive ritual behavior and it is defined as inappropriate actions at the situation. However, these persist and often result in undesirable consequences.[1] The fears and concerns of the patients difficult them to carry out daily activities. About 3% of the world population has OCD. Children can also suffer OCD.[2]

ODC is a clinically heterogeneous disorder. Although some structural brain abnormalities have been consistently reported in the OCD, its interaction with certain clinical subtypes deserves further examination. Studies of twins, families, and segregation analysis provided convincing evidence that OCD has a strong genetic component.[3] Treatment is available for people with anxiety disorders. In addition, researchers are looking for new treatments that help to relieve the symptoms. Currently there are drugs to help in the treatment of this disorder, but none of them attacks only this syndrome, and they have a number of side effects or may even present levels of toxicity.

That is why it has been tried to reuse or to reposition drugs already approved by the FDA for treating OCD. The repositioning of drugs is the process of drug development based on the identification and development of new uses for existing drugs. These medicines may be in the market, or they have been discarded due to errors in the final stages of clinical trials. The traditional drug development has duration of 10-17 years, with costs and very high failure rates; while repositioned drug development takes about eight years, with lower costs of R & D (research and development) and a higher rate of success.[4] Finally, bioinformatics studies have been of great help for the research and development of new drugs, and also for research repositioning of these as they

can minimize the time spent searching for the active sites of target proteins; and to make molecular dynamic simulations to test new drugs, among other useful applications.

Conflicts of Interest

The authors declare no conflict of interest.

References and Notes

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