Dopamine receptor antagonist antipsychotic Tx can affect BP

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(HealthDay)—Use of dopaminergic antagonists and agonists can affect
blood pressure (BP), according to a review published online Nov. 8 in the *Journal of Clinical Pharmacy and Therapeutics*.

Nrupa H. Gonsai, a Pharm.D. candidate at the Nova Southeastern University College of Pharmacy in Fort Lauderdale, Fla., and colleagues conducted a literature review to identify studies investigating the association between the use of dopamine antagonists with hypertension, focusing particularly on second-generation antipsychotics, like clozapine.

The researchers found that all five dopamine receptor subtypes (D1, D2, D3, D4 and D5) regulate sodium excretion and BP. The D1, D3, and D4 receptors interact directly with the renin-angiotensin-aldosterone system, while the D2 and D5 receptors interact directly with the sympathetic nervous system to regulate BP. The authors conclude that regulation of BP by dopamine receptors can be disturbed with use of dopaminergic agonists or antagonists.

"Based upon this review, individuals on antipsychotic agents, particularly clozapine, should be routinely monitored for hypertension, and addition of antihypertensive agents such as angiotensin-converting enzyme inhibitors or angiotensin receptor blockers is indicated if hypertension occurs," the authors write.


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