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Atorvastatin promotes *Candida auris* growth from human isolate

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Abstract

Background: The fungal infection, caused by the newly discovered, highly resistant *Candida auris*, was a major global health threat before COVID-19. The concept of drug repurposing not only addresses the issue of microbial resistance, but also is an easy way to bypass the costly and time-consuming novel drug development.

Rationale: Statins, which are therapeutically used for the treatment of atherosclerosis, have exhibited some antifungal actions against various fungal spp. Although, no such study was conducted on *C. auris*. Based on the anti-HMG-CoA reductase activity on ergosterol synthesis, we elucidated the effect of Atorvastatin at clinically administered human dose (0.055g), on *Candida auris* infection.

Method: *C. auris* was isolated from an adult male diabetic patient, and identified on the Vitek system, confirmed on MALDI-TOF MS with 99.9% accuracy.

Observation: Initially, no growth was seen in the first twenty-four hours, but an unexpected growth was observed after 48 hours, and the colonization further doubled in 96 hours.

Conclusion: Our investigation provides an alarming awareness to the patients on Atorvastatin-therapy. They should be highly cautious about *C. auris*, and must take appropriate measures to prevent the infection.

Keywords: *Candida auris*, statins, Atorvastatin, fungal infections