ASSESSMENT OF THE COMBINATION OF FENOFIBRATE AND SILDENAFIL IN ALZHEIMER'S DISEASE

Parnika M. Sose[a] and Gaurav M. Doshi[a]*

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ABSTRACT

The purpose of the study was to evaluate the effectiveness of fenofibrate and sildenafil at various dosages in the treatment of Alzheimer's disease. Sildenafil is an up-regulator of brain-derived neurotrophic factor (BDNF), whereas fenofibrate is a powerful PPAR-α activator. The typical medication was rivastigmine, while the inducer was $AlCl_3$. The tests of spatial working memory included the MWM, Y-Maze, and NOR. Moreover, the levels of Aβ, PPAR-α, BDNF, TNF-α, and IL-1β in the brain were measured using ELISA kits. During the probing session, the MWM displayed a decline in escape latency and rise in the target quadrant entry. The results of the Y-maze and the NOR demonstrated the emergence of spontaneous changes in the discrimination and recognition index scores. The therapy groups showed decline in the levels of TNF-α, IL-1β, and Aβ. The brain histology of the treated group showed moderate neurodegeneration. From this study, we can conclude that fenofibrate and sildenafil when used in combination could be a successful treatment for AD.