

Title : World Drug Delivery And Novel Therapy Summit Neuroscience & Therapeutics & Diffusion Tensor Imaging Tractography: Neural Structural Connectivity analysis for Olfactory Attention Deficit in Alzheimer's Patients

Abstract :

Alzheimer's Disease (AD) is a neurodegenerative disorder, and like most neurodegenerative and neuropsychiatric disorders, olfactory dysfunction is a clinical marker appearing years before the decline in motor and cognitive functions. According to the results of a study comparing the odor-visual association between a controlled group and AD-affected group, a conclusion was drawn regarding degeneration in the central olfactory nervous system, but the specific structure affected remained unknown. The present study includes Diffusion tensor images (DTI) datasets of 25 control and 25 Alzheimer patients from both the sexes, with age group from 50 to 75 years. This study is aimed towards identifying the structural connectivity for Olfactory Attention Deficit in Alzheimer's Patients by identifying the structural connectivity extension between the Olfactory Cortex (OC) and Frontal Eye Field (FEF), using DTI fiber tractography for Olfactory – Saccadic pathways. Results: A rigid pattern was not noted, but among control groups, a number of fibers in Olfactory–Saccadic pathways for female subjects was much higher in proportion (in numbers and volumes) than male. In Alzheimer patients, it was observed that females displayed a much drastic deterioration in (numbers and volumes) Olfactory –Saccadic pathways compared with male patients. Conclusion: Olfactory dysfunction is the earliest clinical symptom, and an inexpensive and practical diagnostic method is urgently needed for early diagnosis. This study provides a significant finding in the identification of structural degeneration, for Olfactory Attention Deficit in Alzheimer patients. But, the confirmation of finding with functional MRIs analysis is crucial.

For more details :

[https://www.researchgate.net/publication/330457309_WORLD_DRUG_DELIVERY_AND_NOVEL_THERAPY_SUMMIT_NEUROSCIENCE_THERAPEUTICS_Diffusion_Tensor_Imaging_Tractography_Neural_Structural_Connectivity_analysis_for_Olfactory_Attention_Deficit_in_Alzheimer's Pati](https://www.researchgate.net/publication/330457309_WORLD_DRUG_DELIVERY_AND_NOVEL_THERAPY_SUMMIT_NEUROSCIENCE_THERAPEUTICS_Diffusion_Tensor_Imaging_Tractography_Neural_Structural_Connectivity_analysis_for_Olfactory_Attention_Deficit_in_Alzheimer's_Pati)