Review of: "Somatostatin and the pathophysiology of Alzheimer’s disease"

Giulio Pasinetti[1]

1 Mount Sinai Hospital

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This study evaluates the critical role of somatostatin positive interneurons in Alzheimer’s Disease (AD) and neuropeptide somatostatin (SST) interneurons in the progression of Alzheimer’s Disease. The author proposed that AD pathogenesis critically depends on early hyperactivity of SST-IN, followed by SST-IN hypofunction and increased network activity as a function of disease progression in certain limbic structures of the brain. The author report of SST-IN sparsity of hypofunction as a feature of AD and how it contributes in the excitatory/ inhibitory balance. It also comments on gender differences of somatostatin and how it affects the propensity to develop AD. The authors lay emphasis on a biological model which postulates how SST-IN hypofunctional contributes to memory deficits to spatial and declarative memory in AD. The work throws light on this alternative model and highlights the importance of understanding the role of SST and SST-IN in AD for potential future therapeutic. The author discusses very important points about the role of somatostatin that goes beyond the role of memory deficits but also mechanism associated to risk factors such as sleep patterns among others and AD neuropathology as a function of disease progression. This is an interesting review article which is very well written in relation to potential role of SST in AD.