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### **Introduction**

Despite suggestions that chronic stress is involved in the pathogeny of dementias, no systematic studies investigated the possibility of a link between dissociative amnesia and neurodegenerative dementias.

### **Methods**

We analyzed data from over a dozen patients with functional dissociative amnesia, whom we investigated with neuropsychological methods, structural and functional neuroimaging. We followed prospectively approximately half of these patients for more than a decade.

### **Results**

We evidenced in a substantial sample of patients with dissociative amnesia with preponderant retrograde memory impairments a hypometabolism during resting state in the right temporo-frontal region, with a decrease in the infero-lateral prefrontal cortex. Additional preliminary data from DTI suggested a decreased integrity of long distance fiber tracts important for conscious mnemonic processing. We found a chronic course of the memory impairments in a substantial number of patients with dissociative amnesic conditions. In some chronic cases of dissociative amnesia we noted a fairly stable course, while in other cases we observed a progressive global cognitive deterioration.

### **Discussion**

These findings point to a non-homogenous course of dissociative amnesia.

### **Conclusion**

The search for a link between dissociative amnesic conditions and dementia should take into consideration multiple variables, such as the age at the onset of trauma, gender, the recurrence, type and severity of trauma, the presence of psychiatric and medical co-morbidity, pre-morbid personality characteristics (e.g. neuroticism), genetic polymorphisms, educational and occupational attainment, cognitive reserve and the progression of metabolic and microstructural brain changes.