The hippocampus has recently been identified to play a key role in the pathophysiology of adult obsessive-compulsive disorder (OCD). Surprisingly, there is only limited evidence regarding the potential relationships with symptom dimensions. Due to the heterogeneity of symptoms in OCD, we aimed at further examining, whether hippocampal volume differences might be related to symptom profiles instead of single symptom dimensions. In order to find out more about the potential association between clinical symptom profiles and alterations in hippocampal volume we categorized a large sample of OCD patients (n = 66) into distinct symptom profile groups using K-means clustering. In addition, hippocampal volumes of the different symptom profile groups were compared with hippocampal volumes in a sample of 66 healthy controls. We found significant differences in hippocampal volume between the different symptom profile groups which remained significant after correcting for age, sex, total intracranial volume, OCI-total score, depression, medication, disease duration and scanner. The patient group characterized by overall lower symptom scores and without high symptom severity in any specific domain showed the highest hippocampal volume. Finally, the comparison with healthy controls demonstrated significantly lower
hippocampal volumes in those patients whose symptom profile was characterized by a high severity of ordering and checking symptoms. Present results provide further confirmation for alterations in hippocampus structure in OCD and suggest that symptom profiles which take into account the multi-symptomatic character of the disorder should be given greater attention in this context.