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根据WHO公布的最新统计数据,中国抑郁症患病率为4.2%,保守估计中国抑郁症患者人群目前已超过5800万。遗憾的是,抑郁症机制仍未明晰。“发病年龄”是抑郁症临床和机制研究中的核心关注点,衍生的相关结果通过多尺度数据证实越大的发病年龄预示着越不利的结果,包括抑郁症状越重和持续抑郁的风险。这些结果同步诠释了为何中老年群体是抑郁症的高危人群,且高达20%左右的中老年患者被诊断为重度抑郁症。发病年龄和抑郁症严重程度的响应关系由此被凸显,围绕这一科学问题的多学科探索工作随即纷至沓来:精神学科试图从社会以及心理因素对这一关系进行解析,指出伴随年龄的增加,尤其在现代快节奏社会的背景下,个体更易陷入无望、孤独、自卑、敏感、恐慌等不良情绪中;影像学科则借助神经影像学手段提示发病年龄与抑郁患者脑结构功能可能存在密切关系。尽管一系列振奋性的成果已被学界获得,但详尽的响应机制仍未被完全阐明,发病年龄与抑郁症严重程度之间存在中介因素不能被忽视。因此,本项目在前人研究成果的基础上,基于DTI技术尝试将发病年龄、白质微结构与抑郁症严重程度联系起来,采用中介效应模型探索三者的响应关系。相关结果提示抑郁患者发病年龄越大,其左侧内囊FA值降低越显著,导致的抑郁程度越重,进一步证实了白质微结构可能为发病年龄和抑郁症严重程度的有力中介因子。更重要的是,这些结果阐明了抑郁症发病年龄与抑郁症严重程度之间的潜在机制,为疾病的防控及治疗提供了理论依据和临床指导。详见内文第1~4, 15页。

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#### About the cover

The prevalence of depressive disorder in China is 4.2% according to the latest statistics released by the WHO. And it is conservatively estimated that the number of people suffering from depressive disorder currently exceeds 58 million in China. However, the mechanism of depressive disorder is still unclear. "Onset age" as a core issue in clinical and mechanistic research on depressive disorder, related results of research on that were confirmed by multi-dimension data that a larger onset age indicated a more unfavorable outcome, including more severe depressive symptoms and risk of persistent depression. Meanwhile, these results contribute to explain why the middle-aged and elderly people are at high risk of depressive disorder, and are diagnosed with major depressive disorder up to about 20%. Therefore, the corresponding association between onset age and the severity of depressive disorder have been highlighted, and a flurry of multidisciplinary exploration work around this scientific issue has immediately followed. Psychiatry attempts to explore this association from social and psychological factors, suggesting that individuals are more likely to fall into hopelessness, loneliness, low self-esteem, sensitivity, panic and other negative emotions with advancing age, especially in modern fast-paced society. In addition, imageology presents that onset age might be closely related to brain structure and function of depressive disorder patients through neuroimaging methods. Although a series of encouraging results have been obtained by the academic community, the detailed corresponding mechanism has not been fully clarified, and then the mediation factors between onset age and the severity of depressive disorder cannot be ignored. Hence, on the basis of previous findings, this project attempts to link onset age, white matter micro-structures and the severity of depressive disorder based on DTI technology, and to explore the interrelationship among them by constructing a mediation effect model. The relevant results suggested that the older the depressive disorder patients were, the more significant the decrease of FA values of the left internal capsule was, and the more severe the depressive disorder degree was, which further confirmed that white matter micro-structures might be a powerful mediator of the association between onset age and the severity of depressive disorder severity. What's more, these results shed light on the underlying mechanism between onset age and the severity of depressive disorder, providing theoretical basis and clinical guidance for disease prevention, control and treatment. Please see text page 1-4, 15.