



Elevated systemic inflammation markers in adolescents with non-suicidal self-injury

Jie Zhang, Maolin Meng, Zhiwen Zeng, Junjiao Ping, Yuzhen Liu, Ying Ma, Tingyun Jiang*
Department of Psychiatry, The Third People's Hospital of Zhongshan, 528451 Guangdong, P. R. China
Corresponding: jzshantou@126.com

Introduction

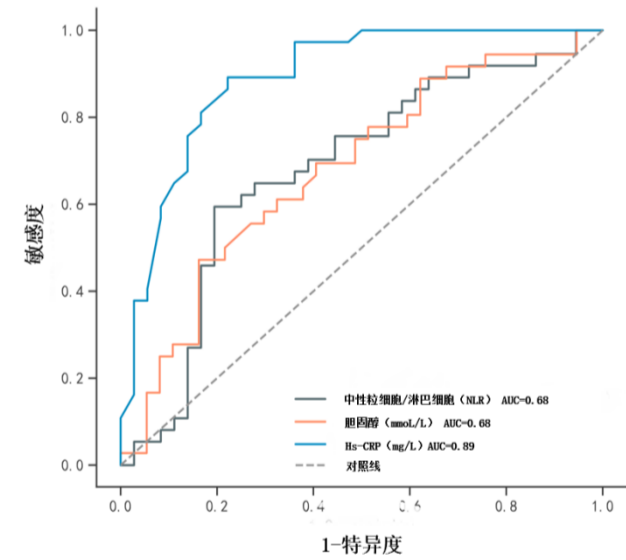
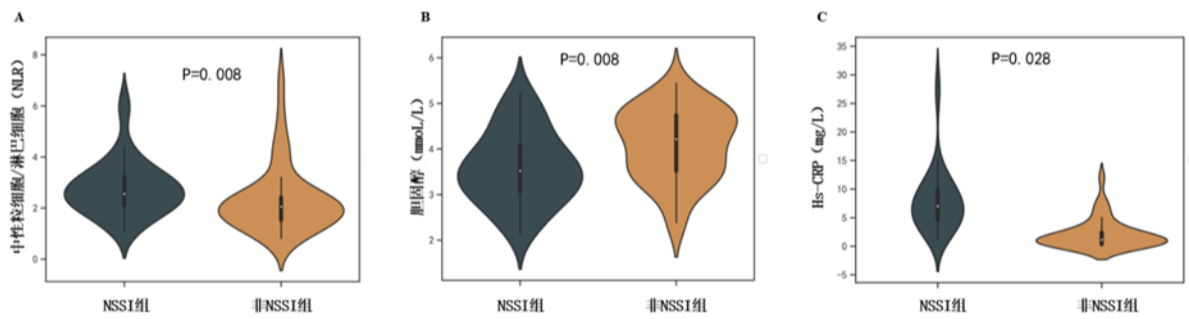
Nonsuicidal self-injury (NSSI) is a prevalent risk behavior among adolescents and commonly comorbid psychiatric disorders (e.g., depression). There is accumulating evidence that alterations of systemic inflammation may occur in the context of risk behavior and psychopathological development.

Methods

Here, we investigated differences in plasma Neutrophil-lymphocyte ratio (NLR), and high-sensitive C reaction protein (hs-CRP) are blood indicators of in a large sample adolescence with/without NSSI (n = 150). Further, we assessed predictive value of index of systemic inflammation for the NSSI behavior determined with Propensity Score Matching (PSM).

Results

The increased levels of the NLR and hs-CRP were found in NSSI compared to non NSSI. The Receiver operating characteristic (ROC) curve analyses demonstrated that for predicting NSSI, the area under curve for hs-CRP was 0.891 with a sensitivity of 89.20% and a specificity of 77.80%, and area under curve for NLR was 0.681 with a sensitivity of 59.50% and a specificity of 80.40%.



Conclusion

The findings suggest that activated systemic inflammation can be detected in adolescents with NSSI. hs-CRP may serve as potential biomarkers in the assessment of NSSI in adolescents.

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References:

Analysis of risk factors of non-suicidal self-harm behavior in adolescents with depression. *Annals of palliative medicine* 2021;10:9607-9613

Nonsuicidal self-injury in adolescence: longitudinal course, trajectories, and intrapersonal predictors. *Journal of abnormal child psychology* 2015;43:369-380