

AS33-02 - COGNITIVE AND EMOTIONAL ENDOPHENOTYPES OF SUICIDAL BEHAVIOUR: ARE THEY USEFUL?

P.Courtet

University of Montpellier, Montpellier, France

Vulnerability to suicidal behavior (SB) is mediated by an underlying genetic predisposition interacting with environmental and probable epigenetic factors throughout the lifespan to modify the function of neuronal circuits, thus rendering an individual more likely to engage in a suicidal act. Recent studies have characterized SB using an endophenotype strategy, which aims to identify quantitative measures reflecting these dysfunctions. In addition to aiding in the functional characterization of susceptibility genes, endophenotypic research strategies may have a wider impact in determining vulnerability to SB, as well as the translation of human findings to animal models. Endophenotypes of SB include impulsive/aggression, serotonergic dysfunction, hyperactivity of the stress axis, low cholesterol levels. We also propose that neurocognitive abnormalities related to the dysfunction of cerebral region would be responsible of progression toward the suicidal crisis (apparition of negative emotions - emotional presuicidal states and suicidal ideas - suicidal act). Specific endophenotypes may represent new targets for successful suicide prevention and treatments. Indeed, restricting suicide prevention to the treatment of the related psychiatric disorder is not sufficient. Endophenotypes-based psychotherapies may be developed, by targeting decision-making impairment, sensitivity to social rejection or decreased attention to social support, characterizing the suicidal vulnerability. The orbitofrontal cortex being a key region in the suicidal brain, we propose that modifying its activity with rTMS may reduce the suicidal vulnerability by correcting the emotional dysregulation and the decision-making impairment. In our opinion, it is time to investigate the possibility of innovative anti-suicide treatments by targeting endophenotypes.