EW0109

Mood disorders in elderly patients hospitalized for acute exacerbation of COPD

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Introduction   Chronic obstructive pulmonary disease (COPD) represents the most common cause of chronic respiratory failure and it's associated with several comorbidities such as depression. Depression is about four times more frequent in elderly patients with COPD compared to peers who are not affected and its prevalence increases with the degree of disease severity.

Objective   To assess mood and perception of the quality of life in elderly patients hospitalized for acute exacerbation of COPD.

Methods   Thirty-five elderly patients hospitalized for reactivation of COPD were examined; they were subjected to spirometry test for the calculation of FEV1 and to COPD Assessment Test (CAT) and Hamilton Rating Scale for Depression (HAM-D) to evaluate impact of COPD on patients' quality of life and depressive symptomatology, respectively. The number of COPD exacerbations in the last year prior to hospitalization and the number of recovery days required for the stabilization of patients were also recorded.

Results   There were strongly significative correlations ($P < 0.001$), positive between HAM-D scores, CAT scores, number of exacerbation in the last year and hospital length of stay and negative between HAM-D scores and FEV1 values. Furthermore, females were more depressed, with lower FEV 1 ($P = 0.043$) and with a longer length of stay ($P = 0.039$) as compared to males.

Conclusions   A greater severity of depressive symptoms is related to a greater severity of COPD exacerbations, disability associated with it and perceived by the patient, as well as a higher number of recovery days and annual acute exacerbations, particularly in female gender.

Disclosure of interest   The authors have not supplied their declaration of competing interest.

EW0110

Cortisol awakening response and depression in acute coronary syndrome patients

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Introduction   Although the available evidence strongly supports an association between depression and coronary heart disease (CHD), the possible biological link between these two conditions still remains to be clarified. The hypothalamus-pituitary-adrenal (HPA) axis is the main endogenous system mediating the stress response and changes in cortisol secretion have been associated with depressed mood in patients with CHD. Therefore, the study of the correlation between cortisol levels and depressed mood in acute coronary syndrome (ACS) patients could help to clarify the nature of the relationship between ACS and the risk to develop a depressive syndrome.

Objective   We aimed to explore the relationships between HPA axis activity and depressed mood in ACS patients.

Aims   The purpose of this study was to determine whether the cortisol awakening response (CAR) is associated and/or predict depressive symptoms in patients with an ACS.

Method   Patients admitted to an ACS ward were asked to fill in the Beck Depression Inventory (BDI) and to collect saliva samples in the morning to measure their CAR. All the procedures were carried out within 1 week after an ACS. Patients were asked again to fill in the BDI six months after their ACS.

Results   A lower CAR was associated with higher BDI scores after 6 months from an ACS.

Conclusions   Our preliminary results suggest that hypoactivity of the HPA axis in the first week of an ACS may predict more severe depressive symptoms after 6 months from the ACS.

Disclosure of interest   The authors have not supplied their declaration of competing interest.

EW0111

Rewarding network mechanism of left orbito-frontal cortex transcranial magnetic stimulation in depression

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Objective   The difficulties in the clinical antidepressant treatment lead to the pursuing of more effective methods such as transcranial magnetic stimulation (TMS). Mixed findings from DLPFC targeted TMS result in the exploration of optimal stimulation location. Disturbed function of obitofrontal cortex (OFC) has been indicated in depression, which is involving in the remission of depression. However, whether it could be a more specific treating target is not tested. Simultaneously, disturbed reward network (RN) has been confirmed in depression, however, whether this could be improved by TMS treatment remains unclear.

Methods   Fourteen patients with major depressive disorder (MDD) were allocated in a four-week course of OFC targeted TMS. Motivated by the literature, before and after the treatment, the function connectivity of RN with the seed of ventral striatum was conducted. The results were also compared with the data from 33 healthy controls.

Results   The OFC targeted TMS improved the clinical depression significantly and enhanced the function connectivity within the RN effectively. Specifically, lower baseline dorsolateral striatum connectivity predicted strong therapeutic effect of TMS on depression, while lower baseline insula connectivity predicted weak therapeutic effect on depression.

Conclusions   The findings offer the first experimental evidence of the therapeutic effect of OFC targeted TMS on clinical depression, enhanced function connectivity within RN might be the potential neural mechanism (Fig. 1). Lower dorsolateral striatum connection might be a reliable neural biomarker of strong responding for TMS treatment, which helps to identify the patients who will be cured by TMS most effectively.