($P = 0.001$ and $P < 0.0001$, respectively). Moreover, the plasma concentration of risperidone and risperidone/9-hydroxyrisperidone ratio in the patients with CYP2D6 activity score 0.5 were significantly higher than those with the CYP2D6 activity score 2.0 ($P = 0.004$ and $P = 0.002$, respectively).

Discussions The present study suggests that it would be ideal to identify the *CYP2D6* genotype of patients before prescribing and administering risperidone. Furthermore, the use of *CYP2D6* gene scoring system to determine an individual's metabolic capacity may become an essential tool for a more rational and safer drug administration.

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

http://dx.doi.org/10.1016/j.eurpsy.2016.01.061

FC58

Angiotensin II type 1 receptor blockade diminishes negative effect of chronic stress on memory via upregulation of brain-derived neurotrophic factor

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Introduction A critical need exists for progress in the characterization of targets for pro-cognitive drug discovery. We previously demonstrated that Telmisartan (TLM), an angiotensin type 1 receptor (AT1) blocker and partial agonist of peroxisome proliferator-activated receptor gamma (PPARγ), alleviates cognitive decline in chronically stressed rats. Understanding of mechanistic background of this phenomenon is hampered by both dual binding sites of TLM and limited data on the molecular consequences of central AT1 blockade and PPARγ activation.

Objectives To discriminate molecular effects of AT1 blockade and PPARγ activation in stress induced memory impairment.

Aims In this study, we investigated mechanism of neuroprotection provided by TLM in chronic psychological stress.

Methods We analyzed BDNF gene expression in the hippocampus (HIP) and medial prefrontal cortex (mPFC) in chronically restrained stressed Wistar rats (2.5 h, 21 days), repeatedly treated with TLM (1 mg/kg), GW9662 (0.5 mg/kg) – a selective PPARγ receptor antagonist, or both in combination. TATA box binding protein (Tbp) was an internal control for expression studies.

Results Alterations of mRNA expression of BDNF are shown on Figs. 1 and 2.

Conclusions AT1 receptor blockade restores cognitive functions in chronically stressed subjects, which is associated with changes in primarily cortical gene expression.

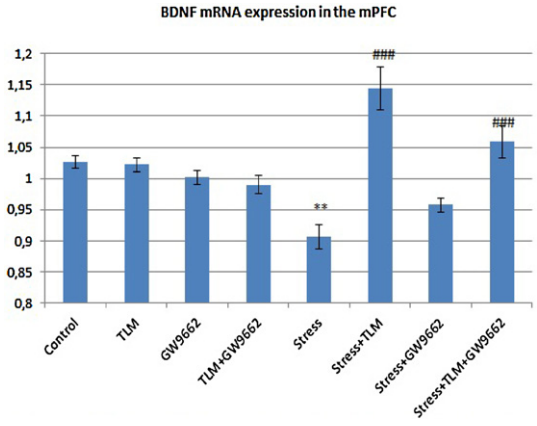

Fig. 1 Effect of chronic stress (2.5 h, 21 days), chronic TLM (1 mg/kg, 21 days), chronic GW9662 (0.5 mg/kg. 21 days) or all in combination on mRNA BDNF expression in the mPFC (BDNF/Tbp ratio). Bars represent mean ± SEM; $n = 5$; ** $P < 0.01$; Control vs. Stress; ### $P < 0.001$ Stress vs. Stress + TLM and Stress vs. Stress + TLM + GW9662.

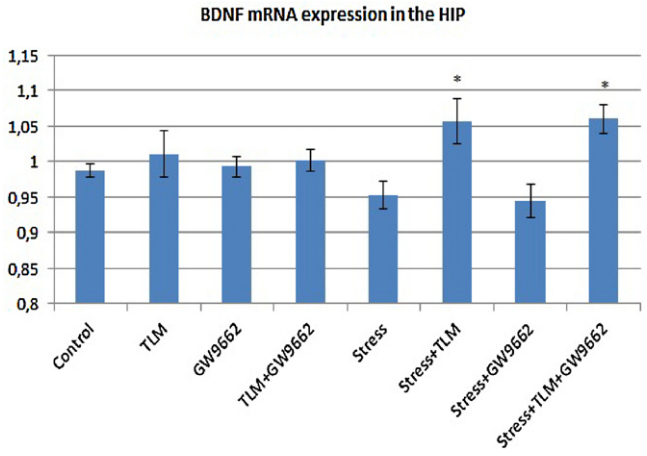

Fig. 2 Effect of chronic stress (2.5 h, 21 days), chronic TLM (1 mg/kg, 21 days), chronic GW9662 (0.5 mg/kg, 21 days) or all in combination on mRNA BDNF expression in the HIP (EDNF/Tbp ratio). Bars represent means ± SEM; $n = 5$; *$P < 0.05$; Stress vs. Stress + TLM and Stress vs. Stress + TLIVH-GW9662.

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

http://dx.doi.org/10.1016/j.eurpsy.2016.01.062

Psychosurgery and stimulation methods (ECT, TMS, VNS, DBS)

FC59

Neuropsychiatric consequences of deep brain stimulation surgeries in the patients affected by chronic movement disorders: A brief report

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The main surgical procedure for PD and other chronic movement disorders is deep brain stimulation. DBS has been reported to have specific consequences such as decline in verbal fluency and episodes of depression.

We designed an interventional study in 12 patients affected by Parkinson, dystonia and tic who underwent DBS surgery. Patient assessed before surgery, one month and one year after surgery.

The results proved a significant improvement in SF36. The Hamilton's anxiety scale showed an overall but insignificant improvement. The mean of scores of the BDI had a great drop one