**EW0103**

**Targeting kynurenine pathway in olfactory bullectomised mice: Inflammatory and neurodegerative pathway of depression**

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**Aims and objectives** The aim of study was to evaluate the pharmacotherapeutic efficacy of NDGA in experimental paradigm of depression i.e. olfactory bullectomy (OB) specifically targeting kynurenine pathway.

**Materials and method** Depression like behaviours was induced in OB mice and evaluated by assessment of various behavioural (olfactory deficit test, forced swim test, splash test, open field test, sucrose preference test), biochemical (catalase, reduced glutathione, SOD, nitrite, MAO-A, MDA, corticosterone), inflammatory cytokines (TNF-α, IL-1β, IL-6, IFN-γ) levels and alterations in delta sleep was recorded using EEG. Kynurenine pathway metabolites were determined in plasma and brain using HPLC method. After 14 days post-surgery, olfactory bullectomized (OBX) mice were administered nordihydroguaiaretic acid (5 mg/kg, 10 mg/kg and 25 mg/kg) daily i.p.

**Results** We have developed a new HPLC method for simultaneous estimation of monoamines and kynurenine pathway metabolites in plasma and brain samples of mice. Chronic treatment with nordihydroguaiaretic acid significantly restored all behavioural, biochemical and neurochemical alterations in OBX mice and increase in quinolinic acid and decrease in kynurenic acid point out the neurodegeneration hypothesis of depression.

**Conclusion** Nordihydroguaiaretic acid showed potent neuropharmacotherapeutic effect in OBX mice by virtue of its strong anti-oxidant, anti-inflammatory, anti-stress and by restoring quinolinic acid levels.

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

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**EW0105**

**Major depressive disorder: Recurrence risk factors**

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**Introduction** In spite of the frequency and the gravity of the depressive episodes, the major depressive disorder (MDD) is diagnosed and treated today insufficiently and the risk factors of its recurrence are little approached.

**Aims of the study** Describe the socio–demographic, clinical and therapeutic characteristics of patients with MDD and identify the factors involved in the recurrence risk.

**Methodology** This is a retrospective study carried out in the university hospital of Mahdia, Tunisia during two years. We have included patients with a follow up for at least two years and diagnosed with MDD, isolated episode or MDD, recurrent episode according to the DSM-IV-TR criteria. Data collection was performed using two pre-established questionnaires respectively with 51 and 92 items. We have estimated the time to recurrence with the Kaplan–Meier estimator.

**Results** We have collected 150 patients. The time to recurrence was 109 months. Five factors were associated with recurrence: early age at onset of the disorder, family history of mood disorders, severity of the index major depressive episode, persistent residual symptoms and ceasing treatment.

**Conclusion** Depression is a very common mental illness that is highly recurrent in individuals. There is great interest in the development of strategies that might reduce the recurrence of depression.

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

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**Table 1**

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<th>SSRI</th>
<th>SNRI</th>
<th>NDRI</th>
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<tbody>
<tr>
<td>n</td>
<td>58</td>
<td>47</td>
<td>22</td>
</tr>
<tr>
<td>AUC RC week 1 (95%CI)</td>
<td>0.77 (0.65–0.87)</td>
<td>0.77 (0.62–0.88)</td>
<td>0.87 (0.66–0.97)</td>
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<tr>
<td>Positive predictive value of RC week 1 (95%CI)</td>
<td>0.81 (0.64–0.93)</td>
<td>0.72 (0.51–0.87)</td>
<td>0.91 (0.59–1.00)</td>
</tr>
<tr>
<td>Negative predictive values of RC week 1 (95%CI)</td>
<td>0.73 (0.52–0.89)</td>
<td>0.84 (0.60–0.97)</td>
<td>0.82 (0.48–0.98)</td>
</tr>
<tr>
<td>Accuracy of prediction</td>
<td>0.78</td>
<td>0.77</td>
<td>0.86</td>
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