administered at baseline, weeks 1, 2, 4, and week 8.The dose of desvenlafaxine was fixed (50mg/day) until week 4, after which it was flexible up to 100mg/day, based on response and tolerability.
Results: Montgomery Asberg Depression Scale scores significantly decreased from baseline (*M*=23.61, *SD*=5.51) to end of treatment (*M*=12.29, *SD*=8.41), *p*<.0001. Severity of illness, as measured by the Clinical Global Impression scale, as well as self-reported depressive symptom scores, significantly decreased from baseline to end of treatment (*p*<.0001). Improvement in quality of life (p<.0001), levels of perceived stress (p<.0001), coping styles (p<.0001), and work impairment (p<.01) were noted over the course of treatment.
Conclusions: Overall results indicate that desvenlafaxine is effective in reducing depressive symptoms and improving functioning in patients with persistent depressive disorder. Further, results provide evidence of good safety and tolerability of desvenlafaxine in this population. These results support the further investigation of desvenlafaxine for this condition using larger, placebo controlled, randomized control trials.

PS101

Oral Ketamine for Treatment Resistant Major Depression – A double blind randomized controlled trial

Yoav Domany MD, Maya Bleich-Cohen PhD, Nadav Stoppelman PhD, Talma Hendler MD PhD, Ricardo Tarrasch PhD, Shaul Schreiber MD, Roi Meidan MD and Haggai Sharon, MD
Tel Aviv Sourasky Medical Center, Israel

Abstract
Background: Major depression is a devastating common disorder. Current pharmacotherapy relies on the monoaminergic theory, and requires a substantial time for full therapeutic effect. Regrettably, about 40% fail to attain remission, defined as Treatment Resistant Depression (TRD). Recently, intravenous ketamine has been shown to provide rapid, short lived, amelioration of TRD. We aimed to assess the clinical efficacy and safety of oral ketamine for TRD.
Methods: In a double-blind, randomized, placebo-controlled trial 27 TRD outpatients received either oral ketamine or placebo for 21 days. Patients were evaluated pre-trial and after 21 days. The main outcome measure was the change in Montgomry Asberg Depression Rating Scale- (MADRS) score.
Result: 14 subjects were randomized to the ketamine group, and 13 to the placebo group. Of these, 12 and 9 respectably completed the study. No significant differences were obtained at time zero. A significant reduction of 13.4 points of the MADRS score was obtained after 21 days in the ketamine group (p=0.003) while a nonsignificant reduction of 2.9 was observed in the placebo group. Four subjects (33%) attained remission (MADRS ≤10) in the ketamine group compared to none in the placebo group. No serious side effects were reported.
Conclusion: In this study, sub-anesthetic oral ketamine produced rapid amelioration of depressive symptoms in ambulatory TRD patients, and was well tolerated. The results of this study suggest that oral ketamine may hold significant promise in the care of TRD.

PS102

Apathy in elderly depression and the antidepressant response

Takahisa Shimano, Hajime Baba
Junendo University Koshigaya Hospital, Japan

Abstract
Background: Although apathy is a common symptom in late-life depression, the treatment effect of antidepressant on apathy in those patients is still unclear. The aim of the present study is to reveal the difference of treatment response on apathy among the class of antidepressant.
Methods: A total of 128 elderly inpatients (>or=60 years old) with a DSM-IV major depressive disorder were recruited from Juntendo Koshigaya Hospital. Patients showing clinical evidence of dementia or with mini-mental state examination (MMSE) scores <24 were excluded. Finally 92 elderly patients were treated with selective serotonin reuptake inhibitors (SSRI, n=52) and serotonin and norepinephrine reuptake inhibitors (SNRI, n=40). We evaluated depressive symptom using Hamilton Depression Scale (HAM-D) and apathy using the Apathy Evaluation Scale Japanese version (AES-J) before and after 4 weeks treatment. Responder was defined as the patients with 50 percent improvement of each score by treatment.
Result: There are no significant differences between SSRI and SNRI on responder rates of HAM-D and AES-J scores.
Conclusion: The treatment response on apathy in patients with late-life depression was not different according to the class of antidepressant. The results with a larger dataset will be reported in the congress.

PS103

Search for biomarkers for ketamine response from changes of cytokines in the patients with treatment resistant depression

Tung-Ping Su[1,2,3,4], Mu-Hong Chen[2,3], Cheng-Da Li[1, 2,3], Ya-Mei Bai[1,2,3], Annie Chang[2], Hui-Ju Wu[2], Wei-Chen Lin[2,3], Pei-Chi Tu[2,4,5]
[1] Department of Psychiatry, National Yang-Ming University [2] Department of Psychiatry, Taipei Veterans General Hospital [3] Institute of Brain Science, national Yang-Ming University [4] Department of Medical Research, Taipei Veterans General Hospital [5] Institute of Philosophy of Mind and Cognition

Abstract
Objective: Increased levels of pro-inflammatory cytokines were reported to be associated with depression. The aim of this study is to search for biomarker for ketamine antidepressant response using levels of cytokines to account for and predict clinical response.
Methods: we conducted a randomized, double-blind placebo-controlled study comparing the two single subanesthetic doses of ketamine infusion (0.5mg/kg & 0.2mg/kg) vs. placebo (PBO) to see the primary behavioral outcome and the alterations of cytokines level for the secondary outcome. The levels of cytokines such as **CRP, IL2, IL6, TNF** α measured at baseline, 240 mins, D2 (48 hrs), and D6 with concommitant mood ratings (HAMD-17 and MADRS) and their changes from baseline were assessed and correlated.
Results: Repeated- Measure ANOVA showed no significant differences of group effect on these four-cytokine levels (p=NS) but with significant time effect on **IL2, IL6, TNF** α. (p=0.034, 0.001 & 0.004 respectively). In that, we observed minimal decreasing rate from baseline to 40 mins and 240 mins post-infusion in **IL2 and IL6** (< 5%) while moderate decreasing in **TNF** α (10–15%). However, no correlations between decreasing rate of cytokines with mood improvemnt rate nor predictors of baseline or changes of cytokines for responder rate (>=50% reduction of either HAMD-17 and MADRS from D2 to D4) were found. Nevertheless, If we divided the cytokine levels using median No into high and low level group, only **baseline IL6 high level group** (IL6 > 28953pg/ml) and **CRP low level group** (CRP< <518ng/ml)