or antidepressants, the effectiveness of these agents remains inconsistent.

**Objective:** To present the case of a patient displaying apathy after cerebral infarction who was successfully treated for apathy with aripiprazole monotherapy.

Case summary: A 56-year-old woman noticed numbness in her left arm and received treatment for cerebral infarction 10 years ago. The numbness was resolved, but she continued to display severe social impairments, including a lack of initiative for housekeeping or loss of motivation for doing anything. When her husband brought her to our hospital, she was lean, disheveled, and dingy, and her verbal responses were prompt but passive. Although she was not depressed, she was assessed as having apathy because of her high score (39) on the Japanese version of Starkstein's Apathy Scale (SAS). We initiated treatment with aripiprazole (3 mg/day) during her hospitalization. After approximately 8 weeks, her SAS score decreased to 21, and she was eventually able to participate in occupational therapy. Psychosocial and environmental support will be added to her treatment regimen because she still has some difficulty maintaining her daily routine.

**Discussion:** The pharmacological mechanism of aripiprazole for apathy treatment remains uncertain. Moreover, it is unclear whether the effectiveness of aripiprazole in this patient can be generalized to other cases of apathy.

Conclusion: Because aripiprazole administration was associated with partial improvement in a patient with apathy (after cerebral infarction), this agent may be considered as potential therapy for apathy.

## PS155

Long-term safety of adjunctive brexpiprazole (OPC-34712) in MDD: results from two 52-week open-label studies

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### Abstract

Background: Brexpiprazole is a serotonin-dopamine activity modulator that acts as a partial agonist at 5-HT1A and dopamine D2 receptors, and an antagonist at 5-HT2A and noradrenaline alpha1B/2C receptors, all at similar potencies. The long-term safety and tolerability of adjunctive treatment with brexpiprazole were evaluated in patients with major depressive disorder and inadequate response to antidepressant treatments, based on pooled data from two open-label extension studies.

Methods: These were open-label, 52- and 26-week, flexibledose studies (study 1 [NCT01447576]: 0.25-3mg/day; study 2 [NCT01360866]: 0.5-3mg/day) with brexpiprazole. Study 1 enrolled de novo patients and patients completing one of the two phase II studies (NCT00797966; NCT01052077) while study 2 enrolled patients completing one of the two pivotal phase III studies (NCT01360645 [1];NCT01360632 [2]). Study 2 is still ongoing; data presented are based on a data-cut from 15-May-2015. Results: 2084 patients were enrolled (697 from study 1 and 1387 from study 2); 48.8% (1016/2084) completed 52 weeks of treatment. Mean brexpiprazole dose was 1.6 mg/day. 13.9% (291/2084) of the patients had a TEAE leading to withdrawal; most frequent AEs leading to withdrawal (>1%) were weight increased (3.6%) and depression (1.3%). The two most frequently reported AEs were weight increased (25.5%) and akathisia (10.0%); the AE profile was similar to that observed in the short-term lead-in studies with no indication of an increased incidence over time for any AEs. Mean weight gain was 2.9kg at week 26 (n=1259) and 3.2kg at week 52 (n=1015). 30.3% (629/2077) of patients had a weight increase that was  $\geq$ 7% in body weight. There were small changes in other metabolic parameters.

Conclusion: Long-term adjunctive treatment with brexpiprazole was safe and well tolerated. Although increases in body weight were observed over time for some patients, the low incidence of discontinuation among those patients suggests that the weight gain was not treatment-limiting for most patients.

#### References

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## PS156

Adjunctive brexpiprazole, a novel effective strategy for treating Major depressive disorder?: Systematic review and Meta-analysis

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### **Abstract**

Background: Brexpiprazole is the newly approved atypical antipsychotics for the adjunctive therapy to antidepressant treatment in major depressive disorder. Brexpiprazole is serotonin-dopamine activity modulator with dopaminergic partial agonist activity like aripiprazole but has lower affinity to D2 and higher affinity to 5-HT1A and 5-HT2A. These pharmacodynamic differences make expectation of lower akathisia and distinct characteristic on management of depression. This systematic review and meta-analysis aimed to evaluate the efficacy and tolerability of brexpiprazole in adjunctive use in depression.

Methods: Article searching was performed in PubMed, Cochrane library database, EMbase, Google scholar and Clinicaltrials.gov. (searching was limited to completed studies) from inception to January 14th 2016, using search terms: "depression" or "depressive (for including depressive illness or major depressive disorder)" and "brexpiprazole" or "OPC-34712". Statistical analysis for acquiring heterogeiniety of studies and pooled value were performed using RevMan 5.3.

Results: 2 journal articles and 13 conference abstracts relevant with 9 completed clinical trials were found. Among 2 more registered completed trials, one had results on online but the other had not. 4 randomised controlled trials used for meta-analysis of brexpiprazole 1~3mg and yielded superior efficacy to placebo with pooled mean difference of change in MADRS and HAM\_D (-1.89, 95% CI= -2.59 ~ -1.18, p-value<0.00001; -2.13, 95% CI=-3.28~0.99, p-value=0.0003). The risk of akathisia and weight increased was higher in brexpiprazole 1~3mg with risk ratio, 3.39 (95% CI= 2.08 ~ 5.51) and 4.36 (95% CI= 2.45~7.77) respectively.

Conclusion: Overall, brexpiprazole shows good efficacy and safety profile in adjunctive treatment for depression.

**Keywords:** Brexpiprazole; OPC-34712; Major depressive disorder; Efficacy; Tolerability

# PS157

Impact of benzodiazepine on cognition of remitted depression

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