however, further exploration of this area is needed before definitive conclusions can be drawn.

Tamoxifen – a potential treatment for women in the manic phase of bipolar affective disorder?

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Background: Bipolar affective disorder (BPAD) is an illness with high morbidity and mortality. Lithium and other anticonvulsant drugs are the main treatments for BPAD, despite little being known about their mechanisms of action. Recent attempts to elucidate the biochemical actions of these drugs have focused on the protein kinase C (PKC) pathways. Another PKC inhibitor hypothesized to be effective in the treatment of mania is tamoxifen, a synthetic nonsteroidal antiestrogen. The aim of the current study was to test and compare the effectiveness of two adjunctive antiestrogen agents (tamoxifen or progesterone) in the treatment of acute mania.
Methods: A 28-day, three-arm (40 mg/day oral tamoxifen or 20 mg/day oral progesterone or oral placebo), double-blind, placebo-controlled, adjunctive study of 34 women with mania was conducted. All patients also received a mood stabilizer as the baseline treatment. Manic symptoms and psychopathology were measured weekly using the CARS-M and Positive and Negative Syndrome Scale rating scales together with estrogen, progesterone and gonadotropin levels. Cognitive functioning (RBANS) was assessed in a subsample of five participants at baseline and repeated on day 28.
Results: Results indicated a decline in the symptoms of mania and psychopathology in the tamoxifen group, and to a lesser extent in the progesterone and control groups. The tamoxifen group also had significant changes in estrogen levels, as well as correlations between estrogen and mania ratings.
Conclusion: The results suggest that tamoxifen may be a useful adjunct in the treatment of acute manic symptoms in women with BPAD.

The use of selective estrogen receptor modulators in the treatment of menopausal women with schizophrenia

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Background: Estrogen modulates rat brain dopamine and serotonin systems in a way that mimics atypical antipsychotics. Our work indicates that adjunctive estrogen is a useful treatment in women of childbearing age with schizophrenia. We studied the use of a selective estrogen receptor modulator (SERM) in menopausal women with schizophrenia.
Aim: To test and compare the effects of adjunctive use of an SERM (raloxifene) and standard hormone therapy (HT) on psychotic symptoms in menopausal women with schizophrenia. To examine the effect of an SERM and HT on cognition in menopausal women with schizophrenia.
Method: A double-blind, 3-month, placebo-controlled, adjunctive study of raloxifene (60 mg/day) vs. HT (2 mg estradiol plus 10 mg dihydroprogesterone) vs. placebo was conducted. Participants received standardized doses of risperidone (or equivalent doses of similar antipsychotic medication). Psychopathology was measured fortnightly using the Positive and Negative Syndrome Scale rating scale. Cognitive testing and sex hormone assays were conducted monthly.
Results: Data collected from 23 participants indicated that while SERM or HT adjuncts did not result in an improvement in psychotic symptoms when compared with risperidone alone, the use of adjunctive SERM resulted in improved cognitive performance on working and verbal memory tasks when compared with the HT or risperidone alone.
Conclusions: The use of adjunctive SERM at 60 mg/day may induce a mild increase in cognitive performance in menopausal women with schizophrenia. Yaffe et al. (2005) show that 120 mg/day raloxifene was more effective in improving cognition in healthy postmenopausal women. We are undertaking a new study with this increased dose of raloxifene.

The estrogen 100

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Aim: To compare the efficacy of adjunctive transdermal estradiol with adjunctive placebo in the treatment of acute psychotic symptoms in 100 women with schizophrenia.
Background: Estrogen has been shown in animal studies to have dopamine downregulation effects and has also been shown to impact the serotonergic system. Additionally, there are clinical case reports of women whose schizophrenic symptomatology is exacerbated at low estrogen phases of the menstrual cycle. Similarly, there are clinical case reports of women with

https://doi.org/10.1017/S0924270800030489 Published online by Cambridge University Press

chronic schizophrenia improving during pregnancy when estrogen levels are extremely high.
Methods: A double-blind, 28-day, placebo-controlled, adjunctive study was conducted comprising two groups of women of childbearing age. While one group of women received 100 mcg transdermal estradiol, the other group received transdermal placebo. The differences in psychopathology between the two groups were subsequently compared. Hormone, psychopathology and cognitive assessments were performed routinely throughout the 4-week trial period.
Results: Using the Positive and Negative Syndrome Scale (PANSS) rating scale, it was noted that women receiving 100 mcg estradiol improved significantly more in terms of their psychotic symptoms compared with women receiving placebo. Importantly, women who received estradiol improved with regard to positive, negative and general symptoms on the PANSS, in contrast to women on the placebo arm.
Conclusions: Estradiol appears to be a useful treatment for women with schizophrenia. We are furthering this exciting area of research by conducting a multisite 'proof-of-concept' study to determine whether estradiol can be used as an adjunctive treatment of psychotic symptoms in women with schizophrenia.

Using theories of delusion formation to explain abnormal thinking in patients with body dysmorphic disorder

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Background: Body dysmorphic disorder (BDD) is characterized by an overvalued or delusional belief of 'imagined ugliness'. According to the literature, delusional beliefs have been explained by four alternative theories, which include faulty perceptions, theory of mind deficits, reasoning abnormalities and corruption of semantic memory. The current study examined whether these potential explanations are relevant to delusion formation in BDD.
Method: Preliminary data from 10 BDD patients and 10 matched healthy controls were analyzed. The clinical assessment involved questionnaires measuring self-esteem, self-ambivalence, delusional thinking and creative experiences. The cognitive test battery included visual affect perception, semantic memory for somatic concepts, cognitive inhibition associated with somatic and nonsomatic words, and language fluency.
Results: The results confirmed previous findings that patients with BDD are more delusional but additionally showed that delusional beliefs are exceedingly distressing and preoccupying for these patients. Similarly, on a semantic memory task, patients with BDD showed greater acceptance of unusual ideas especially with regard to somatic compared with neutral information. On the fluency task, patients with BDD showed impaired semantic fluency but intact phonological fluency. Furthermore, patients with BDD were impaired in recognizing angry facial expressions, with no deficits on identifying other emotions.
Conclusions: These results have indicated the influence of delusional thinking on cognitive processing in BDD. They have suggested that delusional beliefs may be explained in terms of impaired semantic memory and faulty perception of angry information; these deficits in turn may explain the specificity of preoccupations in BDD.

One-year estimate of depot antipsychotic adherence and readmission in Victorian community mental health settings

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Background: This study aimed to 1) to establish the actual or 'found' depot adherence rate in typical community psychiatric settings, 2) to describe the sociodemographic associations with depot adherence and 3) to investigate the relationship between the degree of depot adherence and admission rate to hospital.
Methods: Patients treated with depot antipsychotics were sampled from CCT settings in two AMHSs in urban Melbourne. Depot adherence was defined as patients receiving their injection ± 7 days from the due injection date. Sociodemographic data were acquired from relevant administrative databases.
Results: The study finds that there is a high mean adherence rate (93%) and the rate of complete adherence is 54%. Patients' adherence was not related to gender, being subject to a CTO, being of NESB, long durations of illness or time on depot treatment. Twenty-eight per cent were admitted in the study year and admission was significantly inversely proportional to depot adherence. The risks of readmission increase significantly when patients are less than 85% adherent, having a relative risk of readmission of 2.63, and for those with less than 75% adherence, a relative risk of 4.32 ($P < 0.01$).
Conclusions: To our knowledge, this is the first study to report on the FDAR in community-treated patients.

https://doi.org/10.1017/S0924270800030489 Published online by Cambridge University Press