

Background: Current schizophrenia guidelines recommend that the choice of antipsychotic be made by the patient and physician together with a discussion of the likely benefits and side effects of each medication. Second-generation antipsychotics are commonly prescribed for the treatment of psychotic disorders, however metabolic adverse effects, such as hyperglycemia, are a potential complication of using this class of medications. Current sources indicate that the second-generation antipsychotic aripiprazole does not alter glucose homeostasis and confers low or no risk of developing diabetes. Below, the authors outline a case of significant, prolonged hyperglycemia secondary to the initiation of oral aripiprazole.

Methods: See Results.

Results: Case:

An 18-year-old female was admitted involuntarily to hospital after she presented with suicidal ideation, ideas of reference, persecutory delusions and paranoia. She was reportedly a well-controlled Type 1 Diabetic prior to admission and her blood sugars were within normal limits for the first 9 days of hospitalization. Aripiprazole 10mg PO QAM was initiated to control symptoms. Within 9 hours of aripiprazole initiation, her blood sugars became unexpectedly and significantly elevated. After 5 days of therapy, aripiprazole was discontinued due to an inability to adequately control blood glucose. Diabetic ketoacidosis and pancreatitis were ruled out as laboratory results showed normal ketones, amylase and lipase. Blood glucose was taken via the Freestyle Libra device which measures interstitial fluid glucose levels and re-checked using the Accu-Chek Inform II monitor which is approved for use with capillary, venous, and arterial blood. Monitoring device malfunction was thereby ruled out as a cause. Diet and insulin administration techniques were closely monitored by nursing staff. Endocrinology and clinical dietary services were consulted. At their peak, blood sugars were as high as 25.9 mmol/L despite an increase in patient's daily insulin (total bolus and basal) from 19 units/day to 132 units/day. Patient's blood sugar and insulin requirements remained elevated over the next 17 days before gradually decreasing and returning to baseline.

Discussion: In this case, the authors are of the opinion that the patient experienced a severe idiosyncratic reaction to aripiprazole manifesting as severe hyperglycemia. Aripiprazole's half-life of elimination is 75 hours, and dehydro-aripiprazole (Aripiprazole's active metabolite) is 94 hours; the amount of time for the drug to be essentially removed from the body is 15.6 days and 19.6 days respectively (5 half-lives). This is consistent with the duration of time that passed before blood glucose levels normalized once aripiprazole was discontinued. The manufacturer of aripiprazole (Otsuka) has data regarding increases in blood glucose in adolescents. However, these increases are over a 26 week time frame, occurred in 1.9% of patients, and had a mean increase of 0.12mmol/L in their fasting glucose. This data, and the results of this case, therefore suggest that although increases of blood glucose while on aripiprazole tend to be rare and modest, there may be a subcategory of patients who develop severe hyperglycemia on this medication, and when this severe adverse effect is noted, the provocative agent should be promptly discontinued to reverse the effects.

T5. STRESS SENSITIZATION AS THE UNDERLYING MECHANISM LINKING CHILDHOOD TRAUMA AND PSYCHOTIC-LIKE SYMPTOMS IN NONCLINICAL YOUNG ADULTS

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Background: The traumagenic neurodevelopment model of psychosis poses that prolonged or severe stress exposure in critical developmental periods (i.e., childhood) disrupts psychobiological stress regulation mechanisms, increasing liability for the onset and persistence of psychotic symptoms after re-exposure to stressful events (Read et al., 2014). This disruption

seems to result in a process of behavioral and biological sensitization by which the individual manifests an enhanced stress sensitivity to subsequent minor adversities in adulthood (Belda et al., 2015), which may cause an increased risk for psychosis. The behavioral manifestation of stress sensitization has been examined in samples at clinical risk for psychosis, but it has been scarcely studied in nonclinical populations. The first goal of the present study was to investigate whether the association between childhood trauma (CT) and perceived stress was moderated by the impact of recent life events in a nonclinical sample. The second goal was to test whether the association between CT and suspiciousness was mediated by perceived stress, and whether this mediation was moderated by the impact of life events. Following stress sensitization hypotheses, it was expected that the association between CT and suspiciousness would be mediated by higher levels of perceived stress. In turn, the impact of negative recent life events was expected to moderate the effect of CT on suspiciousness via increased levels of perceived stress.

Methods: The sample consisted of 168 Spanish nonclinical youngsters (mean age=28.01), belonging to the ongoing Barcelona Longitudinal Investigation of Schizotypy Study (BLISS). From a large pool of unselected college students, a selected subsample oversampled for schizotypy scores continues regular follow-up assessments. They were assessed for life events, perceived stress and suspiciousness at the concurrent assessment, whereas CT was assessed 7 years earlier at baseline. Linear regression and simple slope analyses were performed to test whether recent life events moderated the association between CT and suspiciousness. Moderated mediation analyses were conducted to examine the indirect effect of CT on suspiciousness via perceived stress moderated by the impact of recent life events.

Results: Recent life events significantly moderated the association between CT and perceived stress. Simple slope analyses indicated that this association was significant when subjects experienced negative or neutral life events, but not positive life events. Moderated mediation analyses revealed an indirect effect of CT on suspiciousness through perceived stress, which was moderated by the impact of recent life events. Thus, these mediational effects were significant for those subjects with a greater subjective appraisal of a negative or neutral impact of life events, but not for those experiencing a positive impact. The magnitude of the conditional indirect effect (as indicated by the Index of Moderated Mediation) was significantly different across levels of impact of recent life events (i.e., negative, neutral, positive).

Discussion: These findings provide further supporting evidence to the stress sensitization hypothesis for psychosis by showing its manifestation across both the clinical and nonclinical ranges of the hypothesized psychosis continuum. CT and perceived stress were associated when the impact of recent life events was negative or neutral, but not positive, suggesting that positive life events may play a protective role in the perception of stress and the role that stress shows in the mechanistic pathway to suspiciousness.

T6. ASSOCIATION BETWEEN THE USE OF AN ANTIPSYCHOTIC DRUG AND CHANGES IN LIPID PROFILE: A META-ANALYSIS

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Background: Despite their efficacy, antipsychotic drugs appear to be associated with metabolic side effects such as impaired lipid metabolism and an increased risk for developing metabolic syndrome. The association between individual antipsychotics with a stratification for different durations of exposure and mean changes in the complete lipid profile has not yet been the focus of a meta-analysis. Aim of this meta-analysis was to examine the association between changes in lipid parameters in adults using an antipsychotic drug, irrespective of diagnostic indication.