

BDF180059

**Substance misuse To Psychosis for Stimulants (SToP-S) - An Early Assertive
Pharmacotherapy Intervention Study**

Executive Summary

Background Cocaine and methamphetamine (also known as “ice”) are the most commonly abused stimulants in Hong Kong, often leading to psychotic disorders and, in many cases, progressing to schizophrenia. Thus, early assertive pharmacotherapy is essential. However, there is limited evidence on the best antipsychotics for addressing both stimulant abuse and the associated psychosis.

Aims This study aimed to compare the effectiveness of aripiprazole and paliperidone with treatment-as-usual (TaU) in treating stimulant associated psychosis, stimulant dependence, and changes in mood, cognitive, and functional outcomes in stimulant abusers with associated psychosis. Additionally, the study evaluated the conversion rate from stimulant-induced psychosis to schizophrenia with early pharmacotherapy.

Method This 24-month study was conducted in two phases with three groups: aripiprazole, paliperidone, and TaU. During the initial 12-month “Active Intervention” phase, participants received their assigned treatments, followed by a 12-month “Observation Maintenance” phase when treatments could be adjusted. Assessments included BPRS-24, CGI, GASS, SDS, DSM-5 SUD severity, SOCRATES-D, BAI, BDI-II, FAB, MoCA, and ASI-Lite.

Results A total of 165 participants with stimulant associated psychosis were randomized. No significant differences were found among the groups in several outcome measures at the end of both phases. However, there was a transient increase in psychological dependence on methamphetamine in the first six months for those on aripiprazole and paliperidone compared to TaU. Aripiprazole showed better improvements in CGI-I scores and reduced methamphetamine use disorder severity later in the study, while paliperidone was associated with poorer cognitive performance (MoCA scores). The conversion rate from stimulant induced psychotic disorders to schizophrenia was 10%.

Recommendations Early antipsychotic treatment can reduce the rate of conversion from stimulant-induced psychosis to schizophrenia. Both aripiprazole and paliperidone are generally well tolerated, with aripiprazole showing superior outcomes in treating psychotic symptoms and methamphetamine dependence. Cognitive function should be monitored in patients on paliperidone. Clinicians should consider early assertive pharmacotherapy intervention to stimulant abusers with stimulant associated psychosis.