

Cardiovascular disease risk in methamphetamine induced psychotic disorder: Novel problems and future directions

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Dear Editor,

Methamphetamine use disorder (MUD) and associated cardiovascular disease (CVD) problems are increasing worldwide (World Drug Report, 2023). MUD can lead to conditions such as atherosclerosis, cardiac arrhythmias, vasoconstriction and pulmonary hypertension, and cardiomyopathy, which may result in CVD (Kevil et al., 2019). Although the literature on CVDs caused directly and indirectly by methamphetamine is increasing, the relationship between methamphetamine-induced psychotic disorder (MAP) and CVD has not yet been sufficiently investigated.

In the first study in the field, (Örüm et al., 2024), we compared the ten year CVD risk of cases with MUD and MAP who had lifetime cannabis use and found a significantly increased CVD risk in the MAP group compared with the MUD group. When the literature is examined, it is seen that there is no study examining the CVD risk of cases with pure MUP diagnosis. Our previous study (Örüm et al., 2024), which is the only research in the literature, examined the data of cases who used methamphetamine in addition to lifetime cannabis use. The main reason why studies including cases with pure MUP diagnosis cannot be conducted is polysubstance use. Substance use has significant socioeconomic consequences. Due to various reasons, especially loss of social support and unemployment, cases' access to the main substance they use is restricted. Cases who develop addiction turn to cheaper and more easily accessible substances and medications including thinner, lighter fluid, cannabis, pregabalin, gabapentin, benzodiazepine in order to relieve withdrawal (Hosak et al., 2016, Richardson et al., 2010). A significant majority of cases present with a history of polysubstance use during hospital admissions, and in some cases this is confirmed through substance toxicology. This situation is one of the important obstacles to the collection of pure MUP cases. The increased suicidal and homicidal risks of cases with psychotic symptoms make it necessary for these cases to be treated in centres with appropriate conditions. More harmful behaviour is detected in cases diagnosed with MUP compared to other psychotic disorders, and this is among the characteristic features of MUP (Zarrabi et al., 2016). Cases diagnosed with MUP are mostly hospitalized in high-security closed psychiatric wards. Since these units are centres that focus on the treatment of disorders, less importance is given to scientific studies.

For this reason, possible pure MUP cases in these centres are not sufficiently investigated. Other problems include the lack of or inadequate financial resources and inadequacy of inpatient psychiatry units for longitudinal studies.

The fact that MUP will be encountered more frequently in the coming years should motivate us to focus more on related problems. CVD is at the forefront of these problems. It is thought that studies that reduce the limitations will increase our knowledge on CVD related to MUP.

For this purpose, the main centres where MUP cases are followed up should be provided with the necessary facilities to conduct scientific studies in this field. First of all, it is essential to expand the laboratory services that perform drug and medication analysis to a wide range of substance screening (blood and/or urine analysis). In this way, the probability of detecting pure MUP cases is increased. Appropriate working conditions, sufficient time, in-service training and supervision should be provided to researchers working in these centres. Scientific studies should also be supported with financial support.

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