Poster

2025年9月26日(金) 14:00 ~ 15:10 Poster Session (Foyer 2)

Poster 14

[P-14-07] Bupropion for Cocaine Addiction: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

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キーワード：Bupropion、Cocaine、Addiction、Use-disorder、dependence

Introduction:
Cocaine addiction, including cocaine use disorder and dependence, continues to pose a major global public health challenge. According to the World Drug Report 2024, approximately 0.45% of individuals aged 15 to 64 worldwide have used cocaine in the past year. In Indonesia, authorities have seized a total of 1,337.36 grams of cocaine over the past decade, suggesting an emerging concern. According to the National Narcotics Board in 2022, stimulants are among the most frequently used substances in Indonesia. While contingency management remains the most effective behavioral treatment, access is limited, and there is currently no FDA-approved pharmacotherapy for stimulant or cocaine use disorders. Off-label use of bupropion, a norepinephrine and dopamine reuptake inhibitor, has gained attention for its potential to reduce cocaine use and comorbid depressive symptoms. However, prior evidence is limited.

Aim:
To provide a comprehensive evaluation of bupropion's efficacy in promoting abstinence, reducing depressive symptoms, and adverse effects in individuals with cocaine addiction.

Methods:
We conducted a systematic review and meta-analysis following the Cochrane Handbook and PRISMA guidelines. Eligible studies included randomized controlled trials comparing bupropion with placebo or standard care in patients with cocaine addiction. We searched PubMed, EMBASE, ClinicalTrials.gov, and Cochrane Library up to July 2024. Primary outcomes were abstinence duration and depressive symptoms. Risk ratios and mean differences were calculated using random-effects models.

Results:
Five RCTs with 397 patients were included. Bupropion significantly increased the longest abstinence duration (mean difference: 1.75 days, 95% CI: 0.29, 3.20, p = 0.02) but showed no significant effects on achieving consecutive abstinence of 2 or 3 weeks. Bupropion shows no significant difference in depression scores and adverse effects.

Conclusions:
Bupropion may enhance abstinence duration and alleviate depressive symptoms in individuals with cocaine addiction, though the evidence remains limited. Further high-quality trials are needed to strengthen these findings.