

## GLUTAMATERGIC STRATEGIES IN THE TREATMENT OF PATHOLOGICAL GAMBLING: A PILOT STUDY

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**Aims:** There is substantial evidence indicating that pharmacological treatments targeting glutamatergic transmission are of potential utility in the treatment of drug addiction. The aim of this study was to evaluate the long-term outcome of glutamatergic treatments in patients with pathological gambling.

**Methods:** Fifteen patients fulfilling criteria for pathological gambling and receiving drugs with effects on glutamatergic transmission (amantadine, N-acetylcysteine, gabapentin, pregabalin and topiramate) were enrolled. Gambling craving (Gambling Symptom Assessment Scale, G-SAS, and visual analogue scale, VAS) and relapse (Gambling Timeline Follow Back, G-TLFB) rating scales were administered before and after treatment (1, 3, 6 months follow-up).

**Results:** Gambling craving and behavior were significantly reduced ( $p < 0.001$ ) during the study period. Glutamatergic medications also yielded an improvement in treatment retention.

**Discussion:** Our results are discussed in the context of the glutamatergic hypothesis of addiction. Our data seem to confirm the utility of targeting the glutamatergic system for the treatment of PG, in particular by acting on craving and increasing treatment retention. In particular, glutamatergic medications may offer some advantages in preventing relapse.