BRAIN IMAGING STUDY ON KETAMINE ABUSERS
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Ketamine had been used as an anesthetic for a long time. In recent years, unfortunately, ketamine has become an abusive drug in many parts of the world including Taiwan. However, there are only few neuroimaging studies on possible damages induced by ketamine in the brains. A recent study reported brain damages on chronic ketamine abusers by MRI study and showed atrophy over several regions. Also white matter changes were found in bilateral frontal and left temporo-parietal cortices. Another study was conducted on healthy subjects received ketamine challenge and revealed decreases brain functional connectivity of Default Mode Network.

Despite some progress in identifying changes in behavior and brain function following heavy ketamine use; our current understanding of the effects of ketamine on the brain is poor. Specifically, we conduct a two-year study with 30 ketamine users being recruited. We will characterize behavioral performance, changes of brain structural and activities in ketamine users, as compared the healthy controls. The potential findings will extend the literature in addiction neuroscience and provide critical information facilitating research and treatment of ketamine misuse.