Heantos-4 is a formulation consisting of twelve medicinal plant extracts that is currently being used as clinical treatment for opiate withdrawal in Vietnam (unpublished). The dopamine (DA) system has been implicated in addiction. Heantos-4 mitigates withdrawal in morphine-dependent rats and alters DA release (Dias et al., 2016). With the current opioid crisis and the value of this potential treatment, the study aimed to elucidate the mechanisms of Heantos-4 in influencing abnormal brain DA levels seen in addiction and understand the effects on naloxone-precipitated withdrawal from repeated morphine treatment on rats. DA levels in the nucleus accumbens (NAc) were measured by microdialysis and high performance liquid chromatography with electrochemical detection (HPLC-ECD) in freely moving rats while morphine withdrawal experiments were conducted. Rats were treated with morphine (10 mg/kg ip) for 14 days and orally gavaged with Heantos-4 (500 mg/kg po) to measure effects on behaviour through a variation of the Gellert-Holtzman scale, which measures…. Heantos-4 dose-dependently increased DA in the NAc and significantly reduced naloxone-precipitated withdrawal symptoms from morphine. Further experiments testing the presence of specific phytochemicals in the CSF of Heantos-gavaged rats are underway and will provide insight into the role of these compounds in mechanisms of morphine withdrawal.

Themes:
Check (highlight) the most applicable theme according to the abstract.

- Innovation and Technology
- Health and Wellness
- Culture and Society
- Sustainability and Conservation

Comments: and interesting and important study