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Subject: Evidence for Acudetox, as promised, HB 684

Evidence for Acudetox

By Nityamo Lian, DOM, MPH

Ear acupuncture for addictions (acudetox) is a procedure that is used nationwide and worldwide for the prevention, treatment, and harm reduction of substance use including nicotine, alcohol, cocaine, methamphetamine, heroin, prescription and other drugs.

Biological mechanisms of acupuncture for substance use. Acupuncture causes widespread central nervous system responses in humans involving the medial prefrontal cortex, anterior cingulate cortex, amygdala, hippocampus, hypothalamus, cerebellum, basal ganglia, and insula, as assessed by different imaging modalities (reviewed in Dhond, 2007). Functional Magnetic Resonance Imaging (fMRI) studies reveal that acupuncture modulates the activity of brain regions such as the amygdala, insula and hippocampus (Hui, 2000; Napadow, 2005) – areas involved in stress responses. Research using rat models indicates a plausible mechanism of action for acupuncture's effect on the central nervous system in particular dopamine (Lee, 2009; Yi, 2006; Zhao, 2006; Yano, 2004; Yoshimoto, 2001), GABA (Lee, 2008), and serotonin (Guo, 2008; Yoshimoto, 2006; Yano, 2004; Takagi, 1998) systems as well as the more widely known effect on the endorphin (endogenous opiate) system (Lee, 2009b; Guo, 2008; Han, 2004; Shen, 2001; Petti, 1998). Researchers hypothesize that acupuncture reduces the reward mechanism of drug taking primarily by reducing levels of dopamine and secondarily by affecting serotonin, opioids, and GABA, which are all involved in dopamine release. Acupuncture has been shown to inhibit alcohol withdrawal behavior in rats (Zhao, 2006; Kim, 2005) inhibit alcohol drinking behavior in rats (Yoshimoto, 2001), and has a protective effect on gastric mucosa in an alcohol drinking rabbit model (Yi, 2006).

Auricular and body acupuncture for withdrawal symptoms and associated disorders. There is evidence to support body and auricular acupuncture's use to reduce some of the symptoms of drug withdrawal such as: cravings (Courbasson, 2007), anxiety (Pilkington, 2007; Kober, 2003; Wang, 2001a, 2001b, 2003, 2005; Sapir-Weise, 1999), anxiety associated with addiction (Courbasson, 2007; Bullock, 2002; Sapir-Weisse, 1999), depression (Courbasson, 2007; Manber, 2004; Bullock, 2002; Roschke, 2000), insomnia (Phillips, 2001; Montakab, 1999; Yeung, 2009a, 2009b; Ruan, 2009), PTSD (Hollifield, 2007), and body aches and pains (Lin, 2009; Madsen, 2009; Linde, 2009; Usichenko, 2008; Yuan, 2008; Selfe, 2008).

Auricular and body acupuncture for increasing client compliance and reducing recidivism. Gurevich (1996) found significant improvement for outcomes related to compliance, AMA discharge rate, length of stay, acceptance of discharge instructions, and follow-up treatment attendance in an acupuncture treated group at an inpatient psychiatric unit of a general hospital. Bullock (1987, 1989) found a decrease in admissions to detoxification centers and a high retention rate in treatment (Bullock, 1989). There is some evidence that some populations who do not identify with mainstream culture are more likely to attend alternative alcohol treatments such as acupuncture (Dillworth, 2009). In 1997, The National Institutes of Health concluded that acupuncture for addictions, "may be useful as an adjunct treatment or an acceptable alternative or be included in a comprehensive management program" (Acupuncture. NIH Consensus Statement 1997)

Safety of Acupuncture. Adverse effects of ear acupuncture are rare and usually minor including local hematoma and bleeding (3.0%), fainting or nausea (0.8%) (Yamashita, 2000). A series of prospective surveys have established the low rate of serious adverse events for acupuncture in general which can include organ puncture, trauma, infection, physiological or

psychological responses, allergy, and clinical misjudgment (not referring serious diseases that can be treated using conventional methods) (Ernst, 2001; MacPherson, 2004; MacPherson, 2001; Witt, 2009; Yamashita, 2008; Yamashita, 1999; Zhang, 2009). When acupuncture is performed in a professional setting by a fully trained and certified acupuncturist or acudetox specialist, the risk of adverse events is even lower. Possibilities of cross-infection are avoided by using disposable needles and following clean-needle technique procedures as outlined by the Clean Needle Technique Manual (6th Edition). Since acupuncture will be offered in most programs as an adjunct to standard treatment, risk is minimal that patients will delay standard treatment care.

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