Post Traumatic Stress Disorder (PTSD)

Excerpt from www.veterans .gc.ca:

What is PTSD?

PTSD is a psychological response to the experience of intense traumatic events, particularly those that threaten life. For military personnel the trauma may relate to direct combat duties, being in a dangerous war zone, or taking part in peacekeeping missions under very difficult and stressful conditions. PTSD can affect people of any age, rank, culture or gender.

PTSD is characterized by three main groups of problems. They can be classified under the headings of intrusive, avoidance and arousal symptoms. These symptoms cause intense distress and can result in other emotions such as guilt, fear or anger. The symptoms affect the person's ability to function in their everyday activities and so will impact on the whole family.

In the majority of people, the symptoms gradually disappear over time; however, for reasons that are not yet clear, for some people the symptoms persist and they can continue to suffer for years. Effective treatments do exist for PTSD. Treatment can significantly reduce symptoms and improve abilities to cope with the illness. If your symptoms persist or worsen take immediate steps to get professional help. Early treatment can help avoid prolonged stress on yourself and your family and usually results in better outcomes for all.

Mitigation of post-traumatic stress symptoms by Cannabis resin: A review of the clinical and neurobiological evidence.

Author(s)	**Passie T, Emrich HM, Karst M, Brandt SD, Halpern JH.**
Journal, Volume, Issue	Drug Test Anal. 2012 Jul;4(7-8):649-59. doi: 10.1002/dta.1377. Epub 2012 Jun 26.
Major outcome(s)	Significant improvement in one patient with PSD with cannabis
Indication	Posttraumatic stress disorder
Medication	Cannabis
Route(s)	Inhalation
Dose(s)	
Duration (days)	
Participants	1 patient with posttraumatic stress disorder
Design	Uncontrolled case report
Type of publication	Medical journal
Address of author(s)	Department of Psychiatry, Social Psychiatry and Psychotherapy, Hannover Medical School, Hannover, Germany; Laboratory for Integrative Psychiatry, Division of Alcohol and Drug Abuse, Harvard Medical School, McLean Hospital, Belmont, MA, USA. dr.passie@gmx.

Abstract

It is known from clinical studies that some patients attempt to cope with thesymptoms of post-traumatic stress disorder (PTSD) by using recreational drugs.This review presents a case report of a 19-year-old male patient with a spectrum of severe PTSD symptoms, such as intense flashbacks, panic attacks, andself-mutilation, who discovered that some of his major symptoms were dramaticallyreduced by smoking cannabis resin. The major part of this review is concernedwith the clinical and preclinical neurobiological evidence in order to offer apotential explanation of these effects on symptom reduction in PTSD. This review shows that recent studies provided supporting evidence that PTSD patients may be able to cope with their symptoms by using cannabis products. Cannabis may dampen the strength or emotional impact of traumatic memories through synergisticmechanisms that might make it easier for people with PTSD to rest or sleep and tofeel less anxious and less involved with flashback memories. The presence ofendocannabinoid signalling systems within stress-sensitive nuclei of thehypothalamus, as well as upstream limbic structures (amygdala), point to thesignificance of this system for the regulation of neuroendocrine and behavioural responses to stress. Evidence is increasingly accumulating that cannabinoidsmight play a role in fear extinction and antidepressive effects. It is concluded that further studies are warranted in order to evaluate the therapeutic potentialof cannabinoids in PTSD.

Symptoms of severe post-traumatic stress disorder in a young man were significantly improved following self-treatment with cannabis, according to a case report from the

Department of Psychiatry of Hannover Medical School, Germany. From about the age of four, the patient was a victim of long-time sadistic sexual abuse by his father and paternal uncle, which continued until age 15 when he attempted to commit suicide for the second time. The authors of the report first
saw the patient several years later when he was admitted to the psychiatric department for safety and stabilization during a crisis with severe, uncontrolled flashbacks, panic attacks, and impulses for self-mutilation. These had resulted in severe self-injury in the past (mainly lacerations from cutting with knives). After a few days of treatment and stabilization he was referred back to the inpatient psychotherapy treatment centre. In the following weeks his condition improved dramatically. When he was asked what his idea was about the improvement of his condition, he confessed that he had learned to smoke cannabis resin from some other inpatients. He had discovered that he could prevent dissociative states by smoking cannabis when he first felt reactivation and intensification of traumatic memories experienced as flashbacks. Although he still experienced flashback phenomena after the use of cannabis, it alters their course and intensity.

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=493

Cannabinoid facilitation of fear extinction memory recall in humans.

Rabinak CA, Angstadt M, Sripada CS, Abelson JL, Liberzon I, Milad MR, Phan KL.

Neuropharmacology. 2012 Jul 13. [Epub ahead of print]

Major outcome(s)	THC prevented the recovery of fear in this experiment of extinction learning.
Indication	Anxiety;Posttraumatic stress disorder
Medication	Delta-9-THC
Route(s)	Oral
Duration (days)	2
Participants	29 healthy subjects
Design	Controlled study
Type of publication	Medical journal
Address of author(s)	Department of Psychiatry, University of Michigan, Ann Arbor, MI, USA

Abstract

A first-line approach to treat anxiety disorders is exposure-based therapy, whichrelies on extinction processes such as repeatedly exposing the patient to stimuli(conditioned stimuli; CS) associated with the traumatic, fear-related memory.However, a significant number of patients fail to maintain their gains, partlyattributed to the fact that this inhibitory learning and its maintenance istemporary and conditioned fear responses can return. Animal studies have shownthat activation of the cannabinoid system during extinction learning enhancesfear extinction and its retention. Specifically, CB1 receptor agonists, such asΔ9-tetrahydrocannibinol (THC), can facilitate extinction recall by preventingrecovery of extinguished fear in rats. However, this phenomenon has not beeninvestigated in humans. We conducted a study using a randomized, double-blind,placebo-controlled, between-subjects design, coupling a standard Pavlovian fearextinction paradigm and simultaneous skin conductance response (SCR) recordingwith an acute pharmacological challenge with oral dronabinol (synthetic THC) orplacebo (PBO) 2 h prior to extinction learning in 29 healthy adult volunteers(THC = 14; PBO = 15) and tested extinction retention 24 h after extinctionlearning. Compared to subjects that received PBO, subjects that received THCshowed low SCR to a previously extinguished CS when extinction memory recall was tested 24 h after extinction learning, suggesting that THC prevented the recoveryof fear. These results provide the first evidence that pharmacologicalenhancement of extinction learning is feasible in humans using cannabinoid systemmodulators, which may thus warrant further development and clinical testing. Thisarticle is part of a Special Issue entitled 'Cognitive Enhancers'.

CNS Neurosci Ther. 2009 Winter;15(1):84-8. doi: 10.1111/j.1755-5949.2008.00071.x.

The use of a synthetic cannabinoid in the management of treatment-resistant nightmares in posttraumatic stress disorder (PTSD).

Fraser GA.
Source

Operational Trauma and Stress Support Centre, Canadian Forces Health Services Centre, 1745 Alta Vista Drive, Ottawa, Ontario, Canada. fraser.ga2@forces.gc.ca

Abstract

This is the report of an open label clinical trial to evaluate the effects of nabilone, an endocannabinoid receptor agonist, on treatment-resistant nightmares in patients diagnosed with posttraumatic stress disorder (PTSD). METHODS: Charts of 47 patients diagnosed with PTSD and having continuing nightmares in spite of conventional antidepressants and hypnotics were reviewed after adjunctive treatment with nabilone was initiated. These patients had been referred to a psychiatric specialist outpatient clinic between 2004 and 2006. The majority of patients (72%) receiving nabilone experienced either cessation of nightmares or a significant reduction in nightmare intensity. Subjective improvement in sleep time, the quality of sleep, and the reduction of daytime flashbacks and nightsweats were also noted by some patients. The results of this study indicate the potential benefits of nabilone, a synthetic cannabinoid, in patients with PTSD experiencing poor control of nightmares with standard pharmacotherapy. This is the first report of the use of nabilone (Cesamet; Valeant Canada, Ltd., Montreal, Canada) for the management of treatment-resistant nightmares in PTSD.

PMID: 19228182 [PubMed - indexed for MEDLINE]

Neuropsychopharmacology (2012) **37,** 456–466; doi:10.1038/npp.2011.204; published online 14 September 2011

Cannabinoids Prevent the Development of Behavioral and Endocrine Alterations in a Rat Model of Intense Stress

Eti Ganon-Elazar[1] and Irit Akirav[1]

[1]Department of Psychology, University of Haifa, Haifa, Israel

Correspondence: Dr I Akirav, Department of Psychology, University of Haifa, Haifa 31905, Israel, Tel: +972 4 828 8268, Fax: +972 4 824 9157, E-mail: iakirav@psy.haifa.ac.il

Received 8 March 2011; Revised 28 July 2011; Accepted 15 August 2011; Published online 14 September 2011.

Abstract

Cannabinoids have recently emerged as a possible treatment of stress- and anxiety-related disorders such as post-traumatic stress disorder (PTSD). Here, we examined whether cannabinoid receptor activation could prevent the effects of traumatic stress on the development of behavioral and neuroendocrine measures in a rat model of PTSD, the single-prolonged stress (SPS) model. Rats were injected with the CB1/CB2 receptor agonist WIN55,212-2 (WIN) systemically or into the basolateral amygdala (BLA) at different time points following SPS exposure and were tested 1 week later for inhibitory avoidance (IA) conditioning and extinction, acoustic startle response (ASR), hypothalamic-pituitary-adrenal (HPA) axis function, and anxiety levels. Exposure to SPS enhanced conditioned avoidance and impaired extinction while enhancing ASR, negative feedback on the HPA axis, and anxiety. WIN (0.5 mg/kg) administered intraperitoneally 2 or 24 h (but not 48 h) after SPS prevented the trauma-induced alterations in IA conditioning and extinction, ASR potentiation, and HPA axis inhibition. WIN microinjected into the BLA (5 μg/side) prevented SPS-induced alterations in IA and ASR. These effects were blocked by intra-BLA co-administration of the CB1 receptor antagonist AM251 (0.3 ng/side), suggesting the involvement of CB1 receptors. These findings suggest that (i) there may be an optimal time window for intervention treatment with cannabinoids after exposure to a highly stressful event, (ii) some of the preventive effects induced by WIN are mediated by an activation of CB1 receptors in the BLA, and (iii) cannabinoids could serve as a pharmacological treatment of stress- and trauma-related disorders.

http://www.nature.com/npp/journal/v37/n2/full/npp2011204a.html