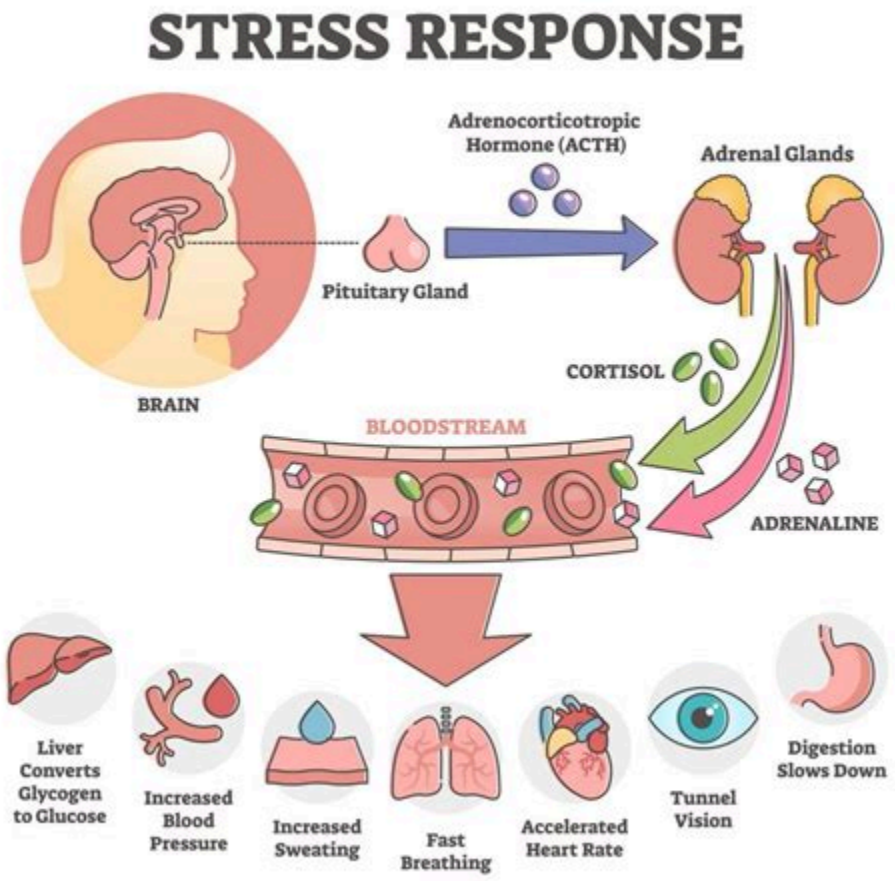
Specifics Precautions Talk with your doctor Overview Klonopin (clonazepam) is a brand-name prescription medication. The Food and Drug Administration (FDA) has approved it to treat certain.

Cortisol and stress: The relationship explained - Medical News Today



Evidence Based 11 Natural Ways to Lower Your Cortisol Levels You may be able to lower your levels of cortisol with exercise, sufficient sleep, and a nutritious diet. Cortisol is a stress.

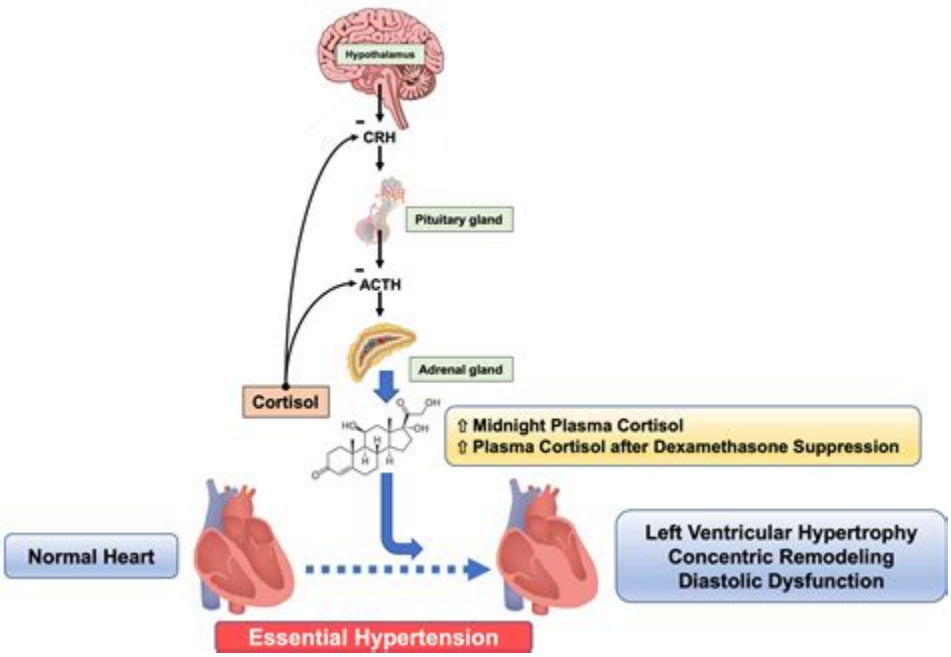
Klonopin Oral: Uses, Side Effects, Interactions, Pictures . - WebMD

They are indicated for treatment of generalized anxiety disorders, treatment of panic disorders with or without agoraphobia, sedation, light anesthesia and anterograde amnesia of perioperative events, control of seizures, and skeletal muscle relaxation (Iqbal et al. , 2002).

Klonopin Uses, Dosage, Side Effects & Warnings - Drugs

Home How to Identify High Cortisol Symptoms and Lower Your Cortisol Levels Having high cortisol levels can lead to serious consequences for your health. Learn how to manage your levels and.

Benzodiazepine suppression of cortisol secretion: a measure of . - PubMed



feeling of unreality. flu-like symptoms. headache, severe and throbbing. lack of feeling or emotion. lack or loss of self-control. muscle stiffness, tension, or tightness. nightmares. pain, inflammation, or swelling in the calves, shoulders, or hands. pain or swelling in the arms or legs without any injury.

11 Natural Ways to Lower Your Cortisol Levels - Healthline

Starting dosage: 0. 01 mg/kg to 0. 05 mg/kg per day, divided into two or three doses. Maintenance dosage: 0. 1 mg/kg to 0. 2 mg/kg per day, divided into three doses. For example, for a child who weighs 30 kg (about 66 lb), a starting dosage of Klonopin would be 0. 3 mg to 1. 5 mg per day.

Cortisol: What It Is, Function, Symptoms & Levels - Cleveland Clinic

1. How it works Clonazepam acts on nerve cells to help calm abnormal electrical activity within the brain and it may be used for the treatment of anxiety, as an anticonvulsant, or for its sedative effects.

Clonazepam: 7 things you should know - Drugs

10. 1055/s-2007-1017143 Clinical studies on spontaneous afternoon cortisol levels in depressed patients revealed that oxazepam given a few hours before blood sampling, may suppress the cortisol levels.

Klonopin side effects: What they are and how to manage them

KLONOPIN
Side Effects
(Clonazepam)

- Confusion and trouble concentrating
- Difficulty breathing and swallowing
- Inflammation around the face
- Shivers, sweating, and dizziness
- Muscle aches and lower back pain
- Extreme fatigue
- Irritated skin, hives, and hair loss
- Loss of appetite
- Lack of libido and sexual arousal
- Nervousness, anxiety, and depression
- Physical dependency or addiction
- Suicidal thoughts

Drug Images Klonopin is a brand-name oral tablet that's prescribed for certain seizure disorders, panic disorder, and agoraphobia. Klonopin contains the active drug clonazepam and belongs to.

Side Effects of Klonopin on the Body - Footprints to Recovery

KLONOPIN
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(Clonazepam)

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- Lack of libido and sexual arousal
- Nervousness, anxiety, and depression
- Physical dependency or addiction
- Suicidal thoughts

Uses. Clonazepam is used to prevent and control seizures. This medication is known as an anticonvulsant or antiepileptic drug. It is also used to treat panic attacks. Clonazepam works by calming .

Klonopin: Dosage, side effects, how it works, and more - Medical News Today

Doctor's answers | Diagnosis, Doctor's Answers Question : I've read that lots of common medicines and treatments can raise or lower cortisol. There's not much mention of the quantity of these meds that affect cortisol though. Xanax and codeine lower, for example, and Zoloft, Ritalin, St. John's Wort, alcohol, and even marijuana raise cortisol.

How to Identify High Cortisol Symptoms and Lower Your Cortisol Levels

Klonopin and suicide. A small number of people taking clonazepam may experience a worsening of depression and suicidal thoughts or behaviors. In the initial clinical trials evaluating the safety and effectiveness of Klonopin, 0. 43% of patients taking Klonopin showed signs of suicidality. S uicidal thoughts and behaviors may be serious enough that patients and caregivers should watch for any .

Long-term benzodiazepine use and salivary cortisol: the . - PubMed

ORIGINAL CONTRIBUTION

Long-Term Benzodiazepine Use and Salivary Cortisol

The Netherlands Study of Depression and Anxiety (NESDA)

Leonie Manthey, MSc, Erik J. Giltay, MD, PhD,* Tineke van Veen, PhD,* Arie Knuistingh Neven, MD, PhD,† Sophie A. Vreeburg, MD,‡ Brenda W.J.H. Penninx, PhD,*‡§ and Frans G. Zitman, MD, PhD**

Background: As benzodiazepines (BZDs) have anxiolytic effects, it is expected that they influence the stress system. During short-term treatment, BZD use was found to suppress cortisol levels. However, little research has been done on the effects of long-term BZD administration on the hypothalamic-pituitary-adrenal (HPA) axis.

Methods: The association between long-term BZD use and cortisol levels was investigated in subjects of the Netherlands Study of Depression and Anxiety with a lifetime diagnosis of anxiety or depression (n = 1531). The subjects were categorized as "daily BZD users" (n = 96), "infrequent BZD users" (n = 172), and "nonusers" (n = 1263). Possible associations between characteristics of BZD use (dose, duration, and dependence) and salivary cortisol levels were analyzed.

Main Outcome Measure: Subjects provided 7 saliva samples, from which 4 cortisol indicators were calculated: the cortisol awakening response, diurnal slope, evening cortisol, and cortisol suppression after ingestion of 0.5 mg of dexamethasone.

Results: Daily users used BZDs for a median duration of 26.5 months and had a median daily dosage of 6.0 mg as measured in diazepam equivalents. Evening cortisol levels were significantly lower in daily users ($P = 0.004$; effect size: $d = 0.24$) and infrequent users ($P = 0.04$; effect size: $d = 0.12$) compared to nonusers. We did not find significant differences in the cortisol awakening response, diurnal slope, or in the dexamethasone suppression test.

Conclusions: Despite the finding of slightly lower evening cortisol levels in daily and infrequent BZD users compared to nonusers, results indicate that long-term BZD use is not convincingly associated with HPA axis alterations.

Key Words: benzodiazepines, anxiolytics, cortisol, HPA axis, long-term use

Abbreviations: BZD - benzodiazepines, HPA axis - hypothalamic-pituitary-adrenal axis, CAR - cortisol awakening response, DST - dexamethasone suppression test

(*J Clin Psychopharmacol* 2010;30: 160–168)

As benzodiazepines (BZDs) have anxiolytic and sedating effects, it is expected that they influence the stress system. Most studies on the effects of short-term BZD treatment (maximum of 3 months) on the hypothalamic-pituitary-adrenal (HPA) axis in human subjects reported a decrease in cortisol levels,[1–11] although some studies reported mixed results.[12,13]

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These inconsistencies may be explained by differences in dosages and half-lives of the BZDs used[1,2] and by disparities in the time points used in the assessments (only predrug and postdrug measurements,[1,3] at certain time intervals,[6,8,10–12,14] or for a full circadian cycle[1,2,5]). Differences in patient groups,[1,2,13] and measurements of basal versus stress-provoked cortisol levels may also influence the results.[3,13] In general, the studies measured plasma cortisol levels[1–3,5,6,8,9,11,13] or urinary free cortisol as measures of HPA axis activity.[4] Associations between BZD use and dexamethasone suppression have only been investigated in 1 study and no clear effect of BZD use on dexamethasone suppression was observed.[14] A few studies found that the cortisol decrease in response to BZD treatment was followed by a return to baseline cortisol levels within only a few hours, despite persisting high plasma drug levels,[15–17] suggesting fast development of tolerance to the stress axis–suppressing effects of BZDs. In contrast, other studies did report significant cortisol reductions in 24-hour, overnight, and daytime means,[1] suggesting that tolerance does not develop as rapidly.

Tolerance to the effects of BZDs as a consequence of chronic use (>3 months) has been extensively discussed in previous studies.[18,19] In related research on the therapeutic effects of BZDs, several authors reported that tolerance was developed to only the cognitive and psychomotor effects and not to the anxiolytic effects of chronic BZD treatment,[19] whereas others found decreasing anxiolytic efficacy as well when treatment exceeded a few weeks.[18] Most studies on the effects of BZDs on cortisol levels found that cortisol suppression was maintained for up to 3 months of use.[1,2,4,9,12]

There was only 1 small cross-sectional study investigating long-term BZD use (>3 months).[20] The authors found that long-term users have similar baseline cortisol levels as nonusers, indicating that BZDs do not maintain their cortisol-suppressing effects during longer-term use. In contrast, an additional dosage of BZDs (on top of the BZD dosage that long-term users took in the morning) still affected the HPA axis after chronic use. However, comparison groups were small, no measurement of the whole circadian rhythm was conducted, and no dexamethasone challenge test was applied.[20]

In this paper, we examine the effects of chronic BZD use on various salivary cortisol measures (cortisol awakening response, diurnal slope, evening cortisol level, and suppression after oral dexamethasone administration). In addition, we explore the effects of dosage, duration of use, and level of dependence. The study was carried out on data from 1531 subjects with a lifetime diagnosis of anxiety and/or depression participating in the Netherlands Study of Depression and Anxiety (NESDA).

MATERIALS AND METHODS

Subjects

Subjects participated in the baseline assessment of the NESDA, an 8-year longitudinal cohort study of 2981 respondents aged 18 to 65 years.[21] Subjects were recruited from the

Treatment Stress-management tips FAQ Summary Some people refer to cortisol as the stress hormone. The body produces cortisol to prepare the body to respond to a perceived danger or stressful.

Klonopin side effects and how to avoid them | SingleCare

What to consider Klonopin vs. Xanax How to take Uses Overdose Cost Resources and support Q&A Klonopin basics If you have anxiety or seizures, your medical professional may recommend a.

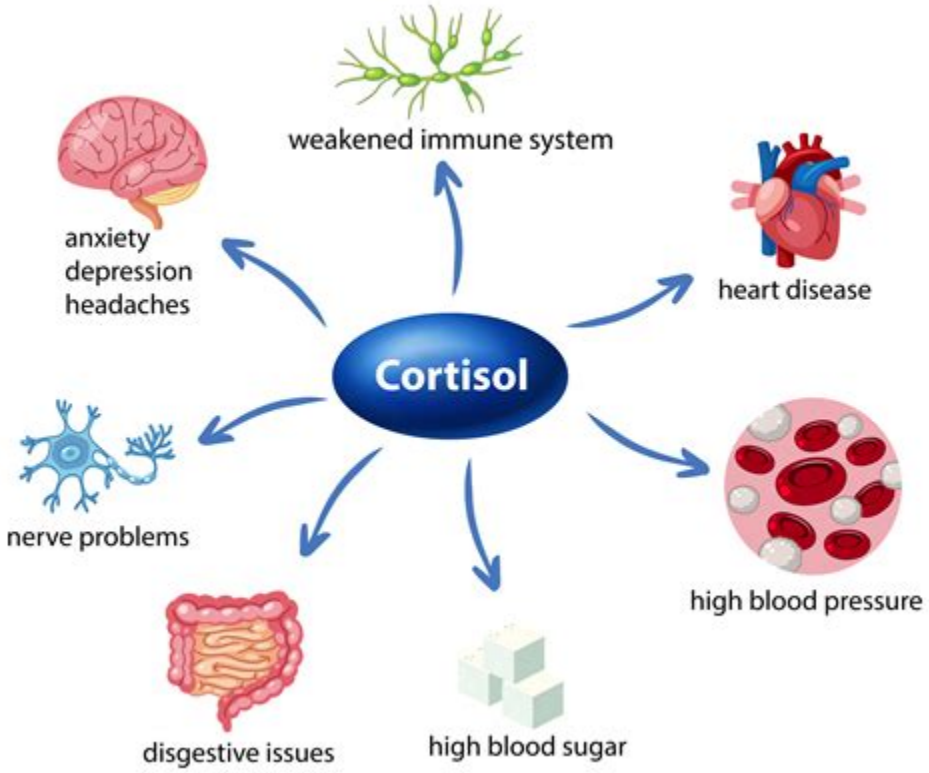
Klonopin dosage: Form, strengths, how to take, and more

The recommended starting dosage of Klonopin for panic disorder in adults is 0. 25 mg twice per day. This is the lowest dose of Klonopin that your doctor will recommend. Starting with the smallest .

Klonopin: 7 things you should know - Drugs

Depressive Disorder / psychology Hydrocortisone / chemistry Hydrocortisone / metabolism* Saliva / drug effects* Saliva / metabolism* Despite the finding of slightly lower evening cortisol levels in daily and infrequent BZD users compared to nonusers, results indicate that long-term BZD use is not convincingly associated with HPA axis alterations.

Drugs That Affect Cortisol - CSRF



Benzodiazepines may suppress the level of cortisol even further. Thus, they will only exacerbate the

struggle if used at this stage. Both the NEM stress response and the adrenals are weakened by long-term use of these medications. Long-term use also becomes a stressor in itself due to side effects of the medications.

How to Lower Cortisol: 16 Things to Gradually Try - Verywell Health

Cortisol is an essential hormone that affects almost every organ and tissue in your body. It plays many important roles, including: Regulating your body's stress response. Helping control your body's use of fats, proteins and carbohydrates, or your metabolism. Suppressing inflammation. Regulating blood pressure. Regulating blood sugar.

Klonopin Side Effects: Common, Severe, Long Term - Drugs

KLONOPIN
Side Effects
(Clonazepam)

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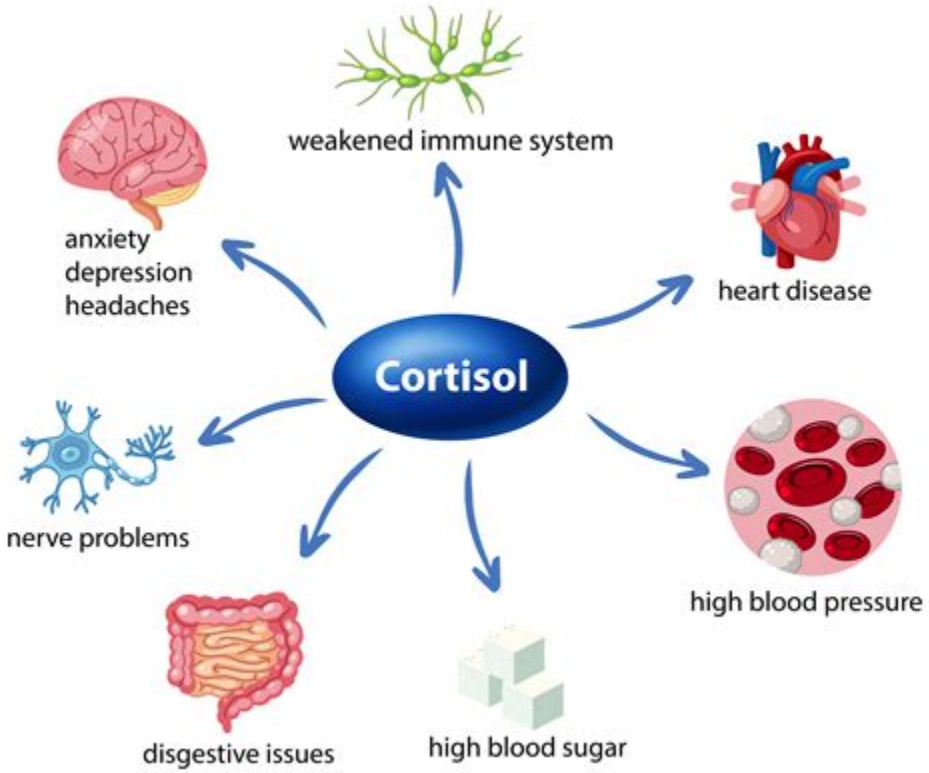
- Extreme fatigue
- Irritated skin, hives, and hair loss
- Loss of appetite
- Lack of libido and sexual arousal
- Nervousness, anxiety, and depression
- Physical dependency or addiction
- Suicidal thoughts

1. How it works Klonopin is a brand (trade) name for clonazepam which may be used to treat certain mood disorders or seizures. Experts aren't sure exactly how Klonopin works to stabilize mood or reduce seizures but experts believe it involves enhancing the activity of GABA (gamma-aminobutyric acid) in the brain.

Klonopin: Side Effects, Dosage, and More | Psych Central

Prescription medications Reducing or eliminating caffeine Relaxation techniques Self-regulation Sleeping enough and well Stress management techniques Stretches Time of Day Cortisol Is Highest

Do antidepressants regulate how cortisol affects the brain?

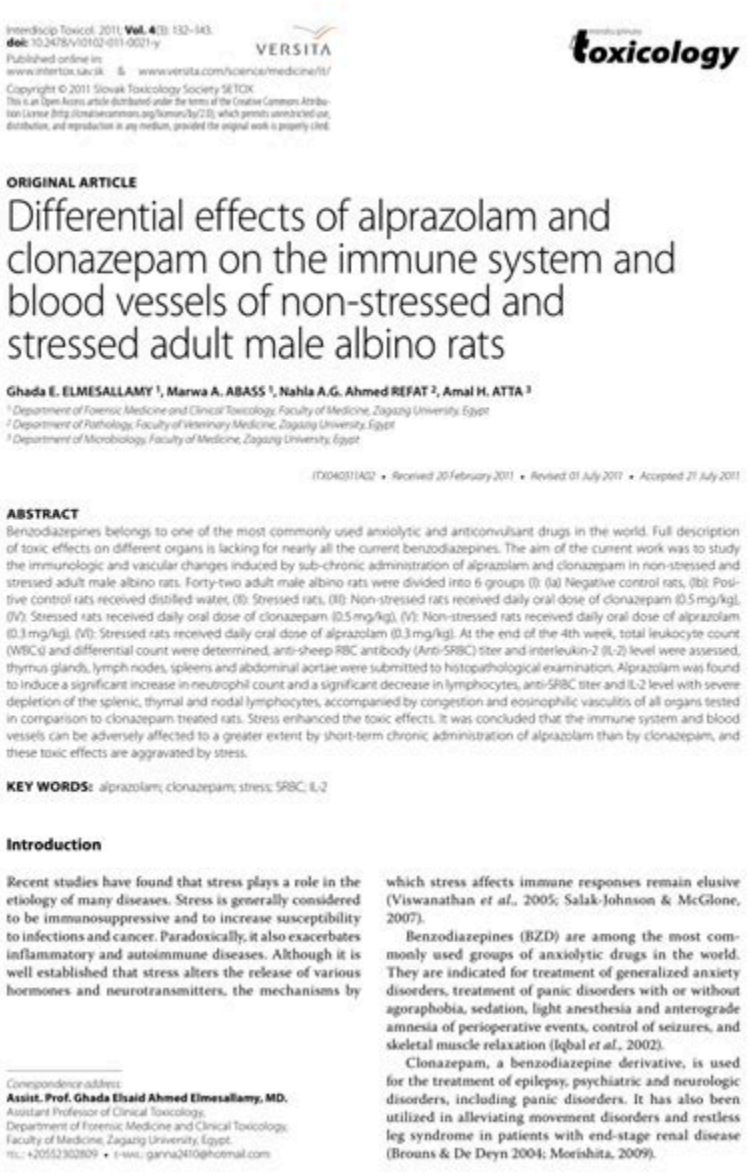


Do antidepressants regulate how cortisol affects the brain? 2004 May;29 (4):423-47. Although the effects of antidepressants on glucocorticoid hormones and their receptors are relevant for the therapeutic action of these drugs, the molecular mechanisms underlying these effects are unclear. Studies in depressed patients, animals and cellular .

Klonopin: Dosage, Side Effects, How it Works, and More - Healthgrades

unusual changes in mood or behavior; confusion, paranoia, nightmares, hallucinations; thoughts of suicide or hurting yourself; unusual or involuntary eye movements. Drowsiness or dizziness may last longer in older adults. Use caution to avoid falling or accidental injury. Common Klonopin side effects may include: drowsiness, dizziness;

Differential effects of alprazolam and clonazepam on the immune system .



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VERSITA

toxicology

ORIGINAL ARTICLE

Differential effects of alprazolam and clonazepam on the immune system and blood vessels of non-stressed and stressed adult male albino rats

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ABSTRACT

Benzodiazepines belongs to one of the most commonly used anxiolytic and anticonvulsant drugs in the world. Full description of toxic effects on different organs is lacking for nearly all the current benzodiazepines. The aim of the current work was to study the immunologic and vascular changes induced by sub-chronic administration of alprazolam and clonazepam in non-stressed and stressed adult male albino rats. Forty-two adult male albino rats were divided into 6 groups (I): (Ia) Negative control rats, (Ib): Positive control rats received distilled water, (II): Stressed rats, (III): Non-stressed rats received daily oral dose of clonazepam (0.5 mg/kg), (IV): Stressed rats received daily oral dose of clonazepam (0.5 mg/kg), (V): Non-stressed rats received daily oral dose of alprazolam (0.3 mg/kg), (VI): Stressed rats received daily oral dose of alprazolam (0.3 mg/kg). At the end of the 4th week, total leukocyte count (WBCs) and differential count were determined, anti-sheep RBC antibody (Anti-SRBC) titer and interleukin-2 (IL-2) level were assessed, thymus glands, lymph nodes, spleens and abdominal aortae were submitted to histopathological examination. Alprazolam was found to induce a significant increase in neutrophil count and a significant decrease in lymphocytes, anti-SRBC titer and IL-2 level with severe depletion of the splenic, thymal and nodal lymphocytes, accompanied by congestion and eosinophilic vasculitis of all organs tested in comparison to clonazepam treated rats. Stress enhanced the toxic effects. It was concluded that the immune system and blood vessels can be adversely affected to a greater extent by short-term chronic administration of alprazolam than by clonazepam, and these toxic effects are aggravated by stress.

KEY WORDS: alprazolam; clonazepam; stress; SRBC; IL-2

Introduction

Recent studies have found that stress plays a role in the etiology of many diseases. Stress is generally considered to be immunosuppressive and to increase susceptibility to infections and cancer. Paradoxically, it also exacerbates inflammatory and autoimmune diseases. Although it is well established that stress alters the release of various hormones and neurotransmitters, the mechanisms by which stress affects immune responses remain elusive (Viswanathan *et al.*, 2005; Salak-Johnson & McGlone, 2007).

Benzodiazepines (BZD) are among the most commonly used groups of anxiolytic drugs in the world. They are indicated for treatment of generalized anxiety disorders, treatment of panic disorders with or without agoraphobia, sedation, light anesthesia and anterograde amnesia of perioperative events, control of seizures, and skeletal muscle relaxation (Iqbal *et al.*, 2002).

Clonazepam, a benzodiazepine derivative, is used for the treatment of epilepsy, psychiatric and neurologic disorders, including panic disorders. It has also been utilized in alleviating movement disorders and restless leg syndrome in patients with end-stage renal disease (Brouns & De Deyn 2004; Morishita, 2009).

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Klonopin (clonazepam) is a benzodiazepine prescribed for seizure disorders as well as anxiety disorders like social phobias and panic attacks. Clonazepam is the generic form of the brand-name drug, Klonopin. It comes in clonazepam oral liquid or clonazepam tablets. Taking Klonopin increases gamma-amino-butyric acid (GABA) in your brain.

- https://groups.google.com/g/ripped-reckoners/c/9guO0d-vIW8
- https://publiclab.org/notes/print/44228
- https://publiclab.org/notes/print/44622