

data demonstrate the possible participation of these adipocytokines in the pathogenesis of development of IR and atherogenesis.

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## **SIDE EFFECTS OF USING ENERGY DRINKS. CLINICAL CASE REPORT**

**Introduction.** Nowadays energy drinks very popular among people. There are drinks without or with alcohol. Because of it the target audience of it – young people. But only small part of them knows about risks caused by side effects of using energy drinks.

**Aim.** Reveal and analysis cause of side effects of energy drinks.

**Materials and methods.** Clinical case that was register in emergency ward Kharkiv Regional Hospital.

**Results.** Young woman 22 years old was arrived to emergency ward with epigastric pain and jaundice, nausea, vomiting and subfebrile temperature. During two weeks before it she's used near 5 liters of energy drinks per day. Also, she's didn't use any drugs or alcohol. Physical examination: epigastric pain, icteric sclera and skin. AST – 7709/liter, ALT – 7533/liter, INR – 1.6. Bilirubin - 3.5 mg/dl, conjugated - 1.9 mg/dl; albumins – 38 g/liter. Alkaline phosphatase and amylase without changes. CT scan of abdomen cavity without pathology. Ultrasound – thickening gallbladder's wall. Was diagnosed acute hepatitis. Intravenous rehydration and hunger were prescribed. After 4 days girl was recovered with blood tests: AST 238/liter, ALT 1947/liter and bilirubin 1,7 mg/dl. Energy drinks include mix of vitamins B group (B6, B3, B12, B9), energy mix (citicoline, taurine, tyrosine, phenylalanine, malic acid, caffeine and glucuronolactone) and enzymes (amylase, protease, cellulase and lactase).

- B6 responsible for hem synthesis, nucleic acid and lipids. Hasn't hepatotoxic.
- B3 (nicotinic acid) – responsible for cellular metabolism. In big doses has hepatotoxic effect, minimal dose 1 g/day (our patient dosage was 300 mg/day (60 mg/liter x 5 liter/day)).

- B12 responsible for nucleic acids synthesis. There is not so much information about toxicity of B12.
- B9 (folic acid) responsible for myelin synthesis and erythrocytes formation. High doses cause insomnia and convulsive seizure.
- Citicoline has neuroprotective and psychostimulating effects. It is having low toxicity for men.
- Taurine involved in excitability of neurons and body detoxification.
- Caffeine is known for its psychostimulating effect. Acute caffeine intoxication (> 300 mg / day) is manifested by anxiety, psychomotor agitation, and arrhythmia.
- Tyrosine has very low toxicity.
- Phenylalanine intoxication: high blood pressure, agitation, insomnia, headaches.
- Malic acid hasn't toxicity.
- Glucuronolactone hasn't toxicity.

Conclusion. Except possible causes of acute hepatitis and study of composition of energy drink that used patient doctors has decide that nicotinic acid can have hepatotoxic effect. Although daily doses just 300 mg, toxic grow because of interaction with other ingredients and longtime of using. Energy drinks is unconventional for our organism effects of it not study well yet. Using of it may cause bad side effects.

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## **FEATURES OF THE COURSE OF ACUTE MYOCARDIAL INFARCTION IN THE PRESENCE OR ABSENCE OF TYPE 2 DIABETES**

Introduction. At present, one of the actual problems at the intersection of cardiology and endocrinology is the issue of the course of acute myocardial infarction (AMI) against type 2 diabetes mellitus because it has a serious medical and social importance. Cardiovascular diseases are a major cause of death for patients with type 2 diabetes. Aim. To analyze the features of the course of acute myocardial infarction depending on the presence or absence of type 2 diabetes.