

CLINICAL PRESENTATION OF THE ABUSE OF INSULIN: HYPOGLYCAEMIC COMA AND ASPIRATION PNEUMONIA IN NON-PROFESSIONAL BODYBUILDERS

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KLINIČKA PREZENTACIJA ZLOUPOTREBE INSULINA: HIPOGLIKEMIJSKA KOMA I ASPIRACIONA PNEUMONIJA KOD NEPROFESIONALNOG BODIBILDERA

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ABSTRACT

The use of medications that improve the physical performance of an individual represents a very serious worldwide health problem. The abuse of these medications is increasing. Herein, we describe a patient, at the age of 20, who was hospitalized due to loss of consciousness and difficulty breathing. At admission, the patient was unconsciousness, tahi-dyspnoic, and had a pale complexion and an athletic build. In gas analyses, extremely low saturation was observed, followed by acidosis, heavy hypoxia with normocapnia, higher lactates, hypocalcaemia and severe hypoglycaemia. The patient was treated with a hypertonic solution of glucose and intubated, with the aspiration of sanious content from the respiratory tract. After treatment, the patient woke from coma but was very confused. In the first 6 hours of hospitalization, severe hypoglycaemia occurred several times, despite the continuous administration of glucose. Due to the growth of inflammatory syndrome since the first day of hospitalization, the patient was kept in the hospital for treatment along with the administration of antibiotic treatment. On the fourth day of hospitalization, the patient stated that for the last year, he had been taking testosterone at a dose of 1 g a week, as well as tamoxifen pills and 15 i.j. of fast-acting human insulin (Actrapid[®]) daily for their combined anabolic effect. Hypoglycaemic coma, caused by the abuse of insulin, represents a severe complication in patients, which can be followed by confusion, a slowed thinking process, the weakening of cognitive functions and even death. It is necessary to invest great efforts into the prevention of the purchase of these medications via the Internet or on the black market for purposes of abuse in order to prevent such serious and life-threatening complications.

Key words: bodybuilding, testosterone abuse, insulin abuse, hypoglycaemic coma

SAŽETAK

Upotreba lekova koji poboljšavaju fizičke performanse pojedinca predstavlja jako veliki zdravstveni problem u svetu. Zloupotreba ovih lekova je u velikom porastu. Prikazali smo pacijenta, starosti 20 godina, hospitalizovanog zbog gubitka svesti i otežanog disanja. Na prijemu pacijent je bio bez svesti, tahi-dispnoican, blede kože, atletske konstitucije. U gasnim analizama viđena je jako niska saturacija praćena acidozom, teška hipoksija sa normokapnijom, povišeni laktati, hipokalcemiju i teška hipoglikemija. Pacijent tetiran hipertoničnom rastvorom glukoze, intubiran, sa aspiracijom sukrvičavog sadržaja iz disajnih puteva. Nakon tretmana pacijent se budi iz kome, postaje budan ali jako konfuzan. U prvih 6h hospitalizacije više puta dolazi do pojave teške hipoglikemije i pored kontinuirane administracije glukoze. Zbog rasta zapaljenskog sindroma, od prvog dana hospitalizacije, pacijent je zadržan na bolničkom lečenju uz ordiniranje antibiotske terapije. Četvrtog dana hospitalizacije pacijent navodi da poslednjih godinu dana koristi testosteron u dozi od 1g nedeljno, tablete tamoksifena kao i 15 i.j. brzodelujućeg kristalnog humanog insulina dnevno (Actrapid[®]), radi zajedničkog anaboličkog efekta. Neželjeni efekti preparata koji imaju anabolički efekat mogu biti jako opasni. Hipoglikemijska koma, izazvana zloupotrebom insulina, predstavlja tešku komplikaciju po pacijenta, koja može biti praćena, konfuzijom, usporenošću misaonog toka, slabljenjem kognitivnih funkcija ali i smrtnim ishodom. U budućnosti je potrebno uložiti jako velike napore u cilju onemogućavanja nabavke lekova sa ciljem zloupotrebe, preko interneta, na crnoj berzi, sa ciljem sprečavanja ovako teških, po život opasnih komplikacija.

Ključne reči: bodybuilding, zloupotreba testosterona, zloupotreba insulina, hipoglikemijska koma.

ABBREVIATIONS

AAS - anabolic androgen steroids
GnRH - gonadotropin-releasing hormone
LH - luteinizing hormone

FSH - follicle-stimulating hormone
GH - growth hormone
MV - mechanical ventilation

