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Letters to the Editor

Severe intradialytic hypoglycemia associated with marijuana use☆

Hipoglucemia severa intradiálisis asociada a marihuana

Dear Editor,

The Patient is a 22-year-old male, normal physical appearance, on chronic haemodialysis with a native arteriovenous fistule. End stage renal disease due to anti-glomerular basement membrane disease. Personal social problems, parents causes of death were AIDS and suicide. He is being followed by psychologist due to serious problems with compliance. Poorly controlled hypertension. Secondary hyperparathyroidism with uncontrolled serum phosphate. On treatment with cinacalcet, enalapril, carvedilol, aspirine, folic acid, vitamin B complex, sevelamer carbonate, calcium polystyrene sulfonate, all in addition to iron, bemiparin and intradialysis IV darbopoetin.

Four years after commencement of renal replacement therapy, the patient was noted to have profuse sweating, dizziness and decreased consciousness during the hemodialysis procedure, approximately 2 h after the initiation of the procedure; the blood pressure was180/97 (usual for the patient) with heart rate of 126 bpm, and a severe hypoglycaemia (30–40 mg/dl) that was difficult to reverse even with glucose 30% boluses and IV infusion of 10% glucose. He denied ingestion of any new drug, toxic agents, or prolonged fasting. Patient was discharged home after stabilisation, but presented the same episode during several dialysis sessions. This episodes did not occur at home and a moderate bilateral mydriasis was noticed. Examination of the monthly blood test revealed sporadic basal hypoglycaemia (60–66 mg/dl) and aHb1Ac of 4.9%. The beta-blocker was suspended and during directed anamnesis patient admitted the consumption us of high amounts of Marijuana (7 cigarettes/day). This is recognized as the most likely cause of the current symptoms. Patient is re-assessed by the Mental Health unit and his smoking habits were progressively reduced, although it was not totally eliminated. Since then, patient has been asymptomatic from a metabolic point of view.

Discussion

In reply to: the differential diagnosis of hypoglycaemia in a non-diabetic patient, the surreptitious ingestion of oral diabetic medication has to be ruled out, which was denied in our case, as well as other hypoglycaemic toxic agents or drugs.[1,2] The patient did not present residual diuresis so a urine toxicology test was not performed and he did not present symptoms of alcohol abuse. Discontinuation of Beta blocker was indicated. The antiaggregant treatment was not suspended due to risk of vascular access thrombosis. Insulin Autoimmune Syndrome is a rare disease whose mechanism is not entirely known. This syndrome has already been described in patients undergoing haemodialysis.[3] In our case, basal insulin was not requested because the diagnosis was already known.

Cannabinoid derivatives have been shown to be involved in the glycogenesis in experimental animals[4]; in weight reduction for obese rat models involving the pancreatic beta-cell,[5] and in the cardiovascular system through B-adrenergenic receptors,[6] yet the mechanisms through which marijuana causes changes in the glucose metabolism,[7] in pancreas as well as in the hypothalamus (bulimia), have not yet been completely understood.

In addition, the excessive interdialytic weight gain regularly presented by the patient prevented oral intake during the dialysis procedure. Haemodialysis with low concentrations of

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glucose in the dialysate (1–1.5 g/l) may have contributed to the presentation of hypoglycaemia intradialysis and not at home.

Conclusion

In the differential diagnosis of hypoglycaemia during hemodialysis in a non-diabetic patient, the use of toxic agents such as cannabinoids and the use of pharmacological agents have to be ruled out.

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Hypertensive crisis in a patient with a medullary lesion☆

Crisis hipertensiva en paciente con lesión medular

Dear Editor,

The patient is a 22-year-old quadriplegic male with trauma was referred to us due to hypertensive emergency with blood pressure values of 250/150 mmHg associated with headache, blushing, perspiration, bradycardia and somnolence. Two years earlier patient had trauma that caused tetraplegia due to craneoencephalic and vertebro-medullary injury resulting in C5 fracture and anterior cervical arthrodesis with complete medullary motor C5 and sensitive C4 lesions. The patient was dependent on others to perform everyday activities and required intermittent urinary catheterization. At medical examination, the patient was conscious and oriented, eupneic in resting position with normal skin and mucosae colouration. Heart sounds were regular at 60 heartbeats per minute without murmurs or audible extra sounds; normal respiratory sounds. Abdomen was soft, nontender, without masses and palpable organomegaly, with no abdominal murmurs. Palpable and symmetric pedial pulse in both lower extremities was noticed. No oedemas were found. A summary of blood tests: haemogram; haemoglobin 13.2 g/dl, haematocrit 37.1%, leukocytes 7.200/mm^3, platelet count 307.000/mm^3; biochemistry: glucose 65 mg/dl, urea 37 mg/dl, creatinine 0.63 mg/dl, GF >60 ml/min/MDRD4, cholesterol 140 mg/dl, LDL 73 mg/dl, Triglycerides 60 mg/dl, AST 28 U/l, ALT36 U/l, GGT 29 U/l, sodium 140 meq/l, potassium 4.7 meq/l, calcium 9.4 mg/dl, phosphate 4.3 mg/dl urine screening without alterations or sediments; 24-h urine sample collection: sodium 262 meq/24 h, ClCr 187.9 ml/min, proteins 198 mg/24 h, albumin 15.6 mg/24 h; endocrine screening: TSH 3.3 mcIU/ml, cortisol 13.2 mcg/dl, 24 h urine free cortisol 41.8 mcg/24 h. Catecholamine and metanephrine in urine were normal. Echocardiogram showed no dilation or hypertrophy of left ventricle with preserved systolic function and normal wall motion. No dilation in right cavities; no valve abnormalities; no pericardial effusion. Normal Eye fundi; chest X-ray: no abnormal findings; normal kidneys by ultrasound. A 24-hour outpatient blood pressure (BP) monitoring was performed with the following results: average BP while awake 125/86 mmHg with average heart rate (HR) 75 b/m. Average BP during sleep

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