4CPS-010 INSULIN PRESCRIPTION ANALYSIS IN A THIRD-LEVEL HOSPITAL

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Background Hyperglycaemia is very frequent in hospitalised patients, increasing the risk of complications, disability and death. An adequate control through the use of insulin is especially important in reducing these. The most recommended administration regimen consists of a basal insulin, a prandial insulin and a scheme correction should replace the monotherapy of insulin with a scheme of correction, since this is ineffective and even entails some risks.

Purpose To analyse the suitability of prescribing insulin guidelines in patients admitted to a third-level hospital based on the recommendations of the Local Society of Endocrinology, Diabetes and Nutrition.

Material and methods Descriptive observational cross-sectional study. All non-critical patients diagnosed with diabetes mellitus who started treatment with insulin (slow action) for 15 days were included. Variables collected: age, sex, basal insulin dose, bolus dose, bolus correction dose and whether or not they had an oral diet in order to evaluate the adequacy of treatment. The prescriptions that followed the Local Society recommendations were considered correct: dose of insulin if oral diet: 50% basal +50% prandial bolus (30% breakfast, 40% lunch and 30% dinner) ± correction dose; if not oral diet: 50% basal ± correction regime.

Results Sixty patients were included (average age: 74.68 years (42–90); 56.66% males (n=34) and 43.33% females (n=26). Insulin prescription was: 98.33% (n=59) insulin glargine and 1.66% (n=1) insulin degludec. Fifty-seven (955) patients had an oral diet. Of these, eight (14.03%) were considered correct prescriptions. Among the considered incorrect prescriptions (85.96%), the errors were: 57.14% did not have a bolus prescription, 30.61% did not adjust the 50% basal dose +50% bolus dose and 12.24% had negative correction higher than the prescribed. No dietary data were obtained from three patients and, therefore, the study was not followed in them.

Conclusion According to the results obtained and, although the study has limitations such as the lack of registration of glycemia and the possibility that some patients do not need bolus doses for blood glucose control, it is clear that there is much to improve. This work opens the way to continue deepening the subject and making appropriate interventions.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Colleges.

No conflict of interest.

4CPS-011 PREVALENCE AND RELATIONSHIP BETWEEN HYPOVITAMINOSIS D AND INSULIN RESISTANCE IN OBESE PATIENT CANDIDATES FOR BARIATRIC SURGERY

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Background Low vitamin D levels have been postulated to be associated with insulin resistance, suggesting that vitamin D plays a role in glucose metabolism and homeostasis.

Purpose To determine the prevalence of suboptimal vitamin D status in obese patients who are at risk of developing type 2 diabetes and its correlation with insulin resistance.

Material and methods Prospective observational study. We included obese patients (BMI >30 Kg/m²) assisted in endocrinology and nutrition, from October to December 2017. Demographic, clinical and biochemical data were evaluated. Vitamin D insufficiency was defined by 25OHD3 levels between 10–20 ng/ml and vitamin D deficiency was defined by levels of 25OHD3 <10 ng/ml. Insulin resistance was estimated by fasting glucose and the HOMA-IR index >2.5. Statistical analyses were performed using the SPSS v.20 program. Associations between continuous variables were evaluated using a univariate linear regression test.

Results We evaluated 85 patients (27 men and 58 women). Mean age 43.8±14.5 years. BMI 43.6±8.2 Kg/m², systolic blood pressure (SBP) 133.4±18.7 mmHg, diastolic blood pressure (DBP) 84.6±11.1 mmHg, fasting glucose 100.8±30.6 mg/dl, glycated haemoglobin (HbA1C) 6.01±1.05%, total cholesterol (TC) 184.4±33.8 mg/dl, HDL cholesterol (HDL-c) 47.8±10.4 mg/dl, LDL cholesterol (LDL-c) 111.5±28.2 mg/dl, triglycerides (TG) 152.8±84.8 mg/dl and 25OHD3 17.5±6.01 ng/ml. 5.88% of participants had 25(OH)D concentrations <10 ng/ml. Serum levels of 25(OH)D showed a significant positive association with HOMA2-%S (p=0.01) and an inverse association with HOMA2-%B (p=0.07) and insulin levels (p=0.01), independent of other factors usually associated with insulin resistance such as age and BMI.

Conclusion Our results highlight the relationship between circulating 25(OH)D and glucose homeostasis in obese patient candidates for bariatric surgery. Consistent with our findings, a recent study has shown a significant increase in HOMA-IR, HbA1c and fasting plasma glucose in healthy individuals with serum concentrations of 25(OH)D <20 ng/mL versus those with 25(OH)D concentrations >40 ng/mL. We suggest that the optimisation of serum levels of 25(OH)D in obese patient candidates for bariatric surgery could represent a preventive strategy against the development of metabolic syndrome, type 2 diabetes and cardiovascular risk. Future prospective intervention studies with a larger sample size are needed to confirm this hypothesis.

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4CPS-012 PREVALENCE OF NUTRITIONAL COMPLICATIONS ACCORDING TO THE REQUESTED HOSPITALISATION SERVICE OF TOTAL PARENTERAL NUTRITION

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Background Hospital malnutrition is a serious health problem with a high prevalence among hospitalised patients, which