

Material and methods Data on faecal output, March 2018 to September 2019, were collected for patients with SBS-IF and a high faecal output, despite treatment with antimotility and antisecretory drugs, who received liraglutide to reduce ostomy output.

Results Ten patients received liraglutide at a standard dose. Small bowel length was <140 cm. Pretreatment faecal output was 3230 mL/day. Two patients did not respond to treatment, while the remaining eight patients (80%) achieved a post-treatment faecal output of 1983 mL/day, with an average reduction of 1402 mL/day (-43%) after 8 weeks of therapy. One patient discontinued therapy following intestinal recanalisation, while therapy is ongoing in seven patients. Liraglutide was well tolerated and all patients reported an improvement in quality of life.

Conclusion and relevance Liraglutide seems to have a place in the limited treatment armamentarium available for patients with SBS-IF, who have a significantly impaired quality of life.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

4CPS-004

EVALUATION OF THE USE OF HYDROCORTISONE, VITAMIN C AND THIAMINE FOR THE TREATMENT OF SEPTIC SHOCK

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Background and importance The combination of thiamine/vitamin C/hydrocortisone has recently emerged as an adjunctive therapy for patients with septic shock (SS)

Aim and objectives To evaluate the use of the combination as a complementary treatment for SS.

Material and methods A retrospective, observational, cohort study was carried out in critically ill patients diagnosed with SS in an ICU between January 2018 and September 2019. Patients were divided into two cohorts: cohort A (had received standard therapy of intensive fluids, empirically broad spectrum antibiotics, prevention of vein thrombosis and norepinephrine as vasopressor therapy) and cohort B (in addition had received intravenous treatment with the combination). Demographic variables (age, gender) and clinical variables (comorbidities, SAPS-III, origin of sepsis, need for invasive mechanical ventilation (IVM) and extracorporeal membrane oxygenation (ECMO), baseline procalcitonin, acute renal failure and blood culture positive) were collected. Dosage and duration of combination treatment were collected in cohort B. Hospital mortality, length of stay (LOS), duration of IVM, requirement for renal replace technique (RRT) and duration of vasopressor treatment were assessed. Comparisons between the groups were performed with STATA V.14.2

Results A total of 115 patients with SS were included (59 in cohort A; 56 in cohort B). All demographic and baseline clinic characteristics were not significantly different between the groups except for immunosuppression (41 vs 28, $p=0.048$). Patients in cohort B received the combination a

median of 3 (1–26) days at doses: vitamin C 1.5 g/6 hours (62.5%), 1 g/6 hours (16.1%), 1 g/24 hours (16.1%) and 0.5 g/24 hours (5.3%); thiamine 200 mg/12 hours (55.4%), 100 mg/24 hours (26.8%) and 100 mg/12 hours (17.8%); and hydrocortisone 50 mg/6 hours (53.6%) and 100 mg/8 hours (46.4%). Twenty-one patients received decreasing dose regimens. In 23 patients in cohort A, steroid treatment was necessary. The combination was prescribed on admission in 80.7% of patients, and in 11 patients the prescription was delayed for a median of 7 (2–16) days. No differences in mortality were observed (24 vs 21, $p=0.450$). Patients in cohort B required more IVM than those in cohort A (31 vs 19, $p=0.014$) for more days (19.42 vs 2.17, $p=0.055$), more RRT (27 vs 16, $p=0.019$) and LOS (10.64 vs 6.37, $p=0.02$).

Conclusion and relevance According to our results, it cannot be concluded that adding hydrocortisone/vitamin/thiamine to standard treatment reduces mortality, LOS or duration of vasopressors. However, there was a tendency to treat the most vulnerable patients (immunosuppressed patients, refractory sepsis and RRT). Variable dosage was used, and as a result of the study, a protocol was developed in the unit to standardise the use of the combination.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-005

RISK FACTORS FOR PERSISTENCE AND TOLERANCE OF COW'S MILK ALLERGY

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Background and importance Cow's milk protein allergy (CMPA) is universally the most common food allergy in the first years of life, and the incidence has increased over the past few years. The presence of CMPA has important repercussions for patients and their families as it diminishes their quality of life.

Aim and objectives Our aims were to characterise our population of children with CMPA and to identify predictive factors for the persistence of this allergy.

Material and methods This was a retrospective observational study in 168 children diagnosed with CMPA at the gastroenterology and nutrition unit undergoing treatment with special formulas for the management of CMPA, between 1 January and 31 March 2017, at the University Clinical Hospital of Santiago de Compostela. Clinical variables and complementary tests, perinatal and nutritional factors, symptoms and type of hydrolysed formula used was recorded. Children were followed-up to 2 years of age. A logistic regression analysis was used to investigate independent predictive factors for the persistence of CMPA beyond the age of 1 year of age.

Results A total of 88 males (52.4%) with a mean age at diagnosis of CMPA of 3.27 ± 2.82 months were studied: 31% did not have a differentiated diagnosis; 89.3% were born after 37 weeks' gestation; 20.2% by caesarean section; 46.4% were breastfed; 36.1% were fed artificially; 17.5% had mixed feeding; and 47.1% had a first or second degree family history.

Patients who began with gastrointestinal and/or cutaneous symptoms were observed to take longer to acquire tolerance

than those with subjective symptoms at the beginning of the study ($p=0.018$). Patients with immunoglobulin E (IgE) mediated CMPA had more cutaneous symptoms (84%) than those not mediated by IgE. In 25 patients (14.9%), CMPA was IgE mediated, of whom only 24% resolved their intolerance before 1 year of age. Mean age of resolution was 18.77 ± 6.25 months.

The most commonly used substitution formulas in our study were hydrolysed lactose free milk protein formulas.

Conclusion and relevance The findings of the study showed that the presence of IgE mediated CMPA, gastrointestinal and/or cutaneous symptoms had negative effects on tolerance. No perinatal or nutritional risk factors were found to predict the persistence of CMPA.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

4CPS-006 USE OF AMMONIUM TETRATHIOMOLYBDATE IN WILSON DISEASE

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Background and importance Wilson disease is a rare autosomal recessive disorder. It is characterised by an excessive accumulation of copper in the body, mainly in the liver, brain and cornea, leading to different manifestations, in which neuropsychiatric and hepatic manifestations predominate. Therapeutic management is based on the use of copper chelating agents (D-penicillamine, trientine) and drugs that hinder the absorption of copper (zinc salts). Ammonium tetrathiomolybdate, an experimental treatment, has also been used for periods of 8 weeks in patients with a neurological presentation under compassionate use.

Aim and objectives To evaluate the effectiveness and toxicity of ammonium tetrathiomolybdate in a patient with Wilson disease.

Material and methods A 42-year-old man was diagnosed with Wilson disease with neurological manifestations at 33 years of age, and increased transaminase levels and the presence of Kayser–Fleischer ring in both eyes. One mutation, c3359T> A (p.Leu1120*), was identified on exon 15 in the ATP7B gene. He was treated with trientine for 4 months with clinical worsening, replacing trientine with zinc sulphate and ammonium tetrathiomolybdate. At 7 weeks, the last drug was retired because of progressive worsening of liver function. Given the clinical situation, D-penicillamine was added to the basic treatment that, 6 months later, was suspended due to marked deterioration in neurological and functional conditions. Maintenance treatment with zinc sulphate was continued. In the following months, neurological symptoms progressively improved, maintaining liver function. Seven years later, due to neurological worsening, treatment was started again with ammonium tetrathiomolybdate 60 mg daily and 8 weeks later it was increased to 120 mg daily (20 mg between meals three times a day and 20 mg with each meal three times a day).

Results After 15 months of treatment with ammonium tetrathiomolybdate combined with zinc sulphate, the patient

experienced improvements in motor and cognitive-behavioural symptoms, and maintained normal haematological and hepatic function. Before starting treatment with ammonium tetrathiomolybdate, at the analytical level, we found: copper in urine 56 $\mu\text{g}/24$ hours, ceruloplasmin 2 mg/dL and copper in blood 34 $\mu\text{g}/\text{dL}$; after 8 weeks (with a dose of 60 mg/day) the values were 111 $\mu\text{g}/24$ hours, 2 mg/dL and 63 $\mu\text{g}/\text{dL}$, respectively, and currently the values are 44 $\mu\text{g}/24$ hours, 2 mg/dL and 16 $\mu\text{g}/\text{dL}$.

Conclusion and relevance In our patient, ammonium tetrathiomolybdate was effective and well tolerated for a prolonged period. It could be an alternative in patients with neurological manifestations.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-007 PHARMACEUTICAL CARE AS A MEANS OF PREVENTION AGAINST DRUG IATROGENESIS: CASE OF ORAL ANTICOAGULANTS

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Background and importance Oral anticoagulants (OAC) have a significant risk of adverse events, particularly in the transition of care where OAC are initiated, modified or transitionally interrupted. Pharmaceutical care through medication reconciliation and patient counselling could improve the benefit to risk ratio of these drugs.

Aim and objectives To use OAC therapy as prioritisation criteria for performing pharmaceutical care: medication reconciliation and pharmaceutical counselling.

Material and methods A prospective and interventional single centre study was conducted from March to September 2018 in the medicine and surgical units. Patients with an OAC prescribed from the outpatient sector were included. These patients received medication reconciliation at admission and discharge as well as patient specific pharmaceutical counselling about OAC to provide education. Their knowledge was assessed with a multiple choice questionnaire.

Frequency and type of reconciliation discrepancies were studied at admission and discharge. The gravity rating of this discrepancies was measured using the Cornish *et al* scale, with three levels of severity: low, moderate and high.

At patient discharge, a summary of the knowledge acquired by the patient about OAC and medication reconciliation was provided to them.

Results A total of 162 patients were included in the study. Medication reconciliation at admission allowed the detection of 133 unintentional discrepancies (0.8/patient) of which 16 represented a high risk to the patient, including 9 errors about OAC prescribing. Concerning medication reconciliation at discharge, 51 unintentional discrepancies (0.3/patient) were detected: 12 represented a high risk to the patient, including 8 errors about OAC prescribing.

The acceptance rate of the discrepancies was 86% in total and reflected the degree of severity of the pharmaceutical interventions. This result reached 96% if we took into account discrepancies with a real clinical impact. Concerning the pharmaceutical multiple choice questionnaire, the success rate was 66%.