adenopathy but it was decided to continue treatment for three more cycles to re-evaluate pseudo-progression versus disease progression. In cycle 9, a new CT scan revealed stability of disease and therefore the patient continued with his treatment. Regarding side effects, the patient had a grade 1 maculopapular rash related to the medication for 3 days.

Conclusion and relevance Immunotherapy, with its own pattern of response different from the pattern of conventional responses, makes the evaluation of the response complicated. In this case, we observed the effect of pseudo-progression followed by a response, complicating estimation of the real effect of cemiplimab, which was shown to be safe and effective, achieving stability of disease.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-266 AFATINIB AS FIRSTLINE TREATMENT FOR ADVANCED LUNG ADENOCARCINOMA IN A PATIENT HARBOURING EXON 19 DELETION IN EGFR: A CASE REPORT

[1]JC Del Río Valencia*, [1]R Tamayo Bermejo, [2]L Rodelo, [1]I Muñoz Castillo. *[1]Regional University Hospital of Malaga, Pharmacy Service, Malaga, Spain; [2]Comarcal Hospital of La Linea De La Concepcion, Oncology Service, La Linea, Spain*

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Background and importance Somatic mutations in the tyrosine kinase domain of *EGFR*, including in-frame deletions in exon 19 (exon-19 del) and the L858R point mutation in exon 21, are common mutations accounting for 80–90% of *EGFR* mutations in non-small cell lung cancer (NSCLC). NSCLC with these types of mutations is particularly sensitive to afatinib treatment which covalently binds to and irreversibly blocks signalling from all homo- and heterodimers formed by the ErbB family members EGFR (ErbB1), HER2 (ErbB2), ErbB3 and ErbB4.

Aim and objectives We present the case of a male patient, who never smoked, diagnosed with stage IV NSCLC harbouring an exon 19 deletion mutation who achieved a complete response to firstline afatinib treatment.

Material and methods This was an observational retrospective study of the use of afatinib in a 46-year-old man diagnosed with NSCLC. Data were obtained from the electronic medical records.

Results The patient was diagnosed with non-squamous NSCLC stage IV in February 2019. He had a considerable lesion localised in the right lower lobe (RLL), 6.28×5.27 cm in transverse and craniocaudal diameter and metastatic lesions (cerebellum metastasis (2.4×2.1 cm), bilateral lung metastases). The patient had no comorbidities. He started treatment with afatinib 40 mg/day in February 2019. After 10 months, the RLL lesion diminished considerably, from 6.28×5.27 cm to 4.4×3.2 cm, and cerebellum metastasis from 2.4×2.1 cm to 1.6×1.8 cm, achieving a durable partial response. In February 2020, bilateral lung metastases had disappeared and he underwent a right lower lobectomy and lymphadenectomy and in March brain radiosurgery, reaching a complete response which was maintained. This patient continued treatment for 19 months. Side effects were grade 1 diarrhoea which allowed him to continue his treatment without delays.

Conclusion and relevance Afatinib represents an important firstline option for patients with advanced NSCLC harbouring an EGFR sensitising mutation, having been shown to prolong progression free survival compared with chemotherapy and the first generation EGFR TKI. Moreover, subanalyses of the prospective LUX-Lung 3, 6, and 7 and FLAURA trials indicated that afatinib and osimertinib were active in patients with CNS lesions. These agents should be considered as firstline treatments of choice in patients with EGFR mutation positive NSCLC and brain metastases.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-267 RETROSPECTIVE ANALYSIS OF CARBOPLATIN DOSING PRESCRIBED IN A CHEMOTHERAPY REGIMEN AND ITS RELATIONSHIP WITH TOXICITY

JC Del Río Valencia*, A Pintado-Alvarez, R Tamayo Bermejo, I Muñoz Castillo. *Regional University Hospital of Malaga, Pharmacy Service, Malaga, Spain*

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Background and importance Carboplatin is one of the antineoplastics in which the dose must be adjusted according to the glomerular filtration rate (GFR) and the area under the curve (AUC). The Cockroft–Gault equation is the most widely used for the calculation of GFR and the Calvert formula is the most commonly used for carboplatin dosing. The Cockroft–Gault equation has two variables (weight and serum creatinine) that depend on the body composition of the patient, and therefore overweight and cachectic people are at risk of undergoing inappropriate carboplatin dosing.

Aim and objectives To analyse carboplatin dosage in cancer patients to determine whether they are over or underdosed in comparison with the theoretical dose during the first cycle, and to determine the relationship between the dosage received in this cycle and dose reduction in subsequent cycles, as a result of side effects.

Material and methods This was a retrospective analysis of prescriptions of chemotherapy with carboplatin conducted in 2019. The variables collected were: anthropometric data (age and sex), number of cycles, chemotherapy scheme, diagnosis, analytical data and dose of carboplatin prescribed based on the AUC of the scheme. They were used as tools to support pharmaceutical validation: creatinine clearance (CrCl) according to the Cockroft–Gault equation and Calvert formula. The mean per cent error (MPE) was used to determine the relationship between the dose received and the theoretical dose calculation during the first cycle. The Shapiro–Wilks test was used to see if the cohort was parametric and the Mann–Whitney U test to assess the possible relationship between the patient's dosage during the first cycle and dose reduction in subsequent cycles.

Results 50 patients were selected, 84% were men and mean age was 66.72±6.66 years. After assessment, 25 patients (50%) received higher doses than the theoretical dose calculation. The mean MPE value (with standard error) for this group was 15.88 ±2.7%. In total, six patients in this group underwent dose reduction due to toxicity related to overdose. No link was found with dose reduction in subsequent

cycles for this cohort of patients after performing statistic analyses.
Conclusion and relevance Not using adjusted body weight in obese patient or capping the level of serum creatinine in cachectic patients (0.7–0.8 mg/dL) may lead to incorrect doses of carboplatin and subsequent toxicity (neutropenia and thrombocytopenia).

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-268 NIVOLUMAB VERSUS PEMBROLIZUMAB IN SECONDLINE TREATMENT OF METASTATIC NON-SMALL CELL LUNG CANCER IN CLINICAL PRACTICE

CM Valencia Soto, MV Villacañas Palomares, V Martinez Callejo, A García-Avello Fernández-Cueto, S Barbadillo Villanueva, M Ochagavia Sufrategui, P Del Río Ortega, CA Alonso Peralta*, A Garcia De La Paz, M Valero Domínguez. *Hospital Universitario Marqués De Valdecilla, Pharmacy, Santander, Spain*

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Background and importance Nivolumab and pembrolizumab are immune checkpoint inhibitors targeting programmed cell death protein 1 (PD-1). The introduction of these agents has significantly improved survival outcomes in metastatic non-small cell lung cancer (NSCLC). However, few studies have compared the efficacy of these two drugs in the secondline setting.
Aim and objectives To compare the efficacy of nivolumab and pembrolizumab in secondline metastatic NSCLC.
Material and methods A retrospective observational study was conducted. We included patients diagnosed with metastatic NSCLC treated with nivolumab and pembrolizumab as secondline treatment in a tertiary care hospital between March 2016 and March 2020. Selected variables were: age, sex, diagnosis, drug, treatment start/end date, disease progression and death. Data were collected using electronic prescription and medical records. Efficacy was measured using survival outcomes. Progression free survival (PFS) and overall survival (OS) were estimated using the Kaplan–Meier method, and the log rank test was used to assess differences between groups. A p value ≤0.05 was considered statistically significant. Statistical analyses were performed using SPSS V.19.
Results 43 patients were analysed. Mean age was 64 years (±7.7) and 79.1% (n=34) were men. 26 patients (60.5%) were treated with nivolumab; mean age in this subgroup was 64±6.8 years, with 80% (n=21) men. The remaining 17 patients (39.5%) received pembrolizumab and mean age was 63 (±9.16), with 76.5% (n=13) men.

Median time on treatment was 4 months (0.5–24.8): 3.5 (0.5–24.8) for nivolumab and 5.4 (0.5–20) for pembrolizumab. Median PFS for all treated patients was 5 months (95% CI 2.26 to 7.4). PFS was 4 months (95% CI 2.6 to 5.4) for nivolumab patients and 5 (95% CI 0 to 11.3) for those treated with pembrolizumab. Regarding OS, median time was 7 months (95% CI 2.5 to 11.5): 5 months for nivolumab (95% CI 2 to 8) and 11 for pembrolizumab (95% CI 6 to 16). There were no significant differences in PFS (p=0.741) or OS (p=0.615) between the subgroups.
Conclusion and relevance According to our results, nivolumab and pembrolizumab showed similar PFS. OS, although not statistically significant, was considerably superior in pembrolizumab patients. These data might be clinically relevant. However, the small sample size makes it difficult to draw conclusions. Further studies should be conducted to confirm potential differences between both anti-PD-1 and could be helpful in supporting clinician decisions.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-269 HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY ASSOCIATED WITH CYTOREDUCTIVE SURGERY IN PERITONEAL CANCER TREATMENTS: A MULTIDISCIPLINARY EXPERIENCE TO EVALUATE ITS EFFICACY

[1]F Rossi, [2]C Sturaro, [1]F Pieraccini*, [3]P Ioan. *[1]Ausl Romagna Morgagni-Pierantoni Hospital, Pharmaceutical Assistance Department, Forlì, Italy; [2]Ausl Romagna Bufalini Hospital, Pharmaceutical Assistance Department, Cesena, Italy; [3]Ausl Romagna Centralised Pharmacy-Pievesestina, Pharmaceutical Assistance Department, Cesena, Italy*

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Background and importance Hyperthermic intraperitoneal chemotherapy (HIPEC) associated with cytoreductive surgery (CRS) represents one of the treatments for peritoneal carcinoma of various primitivities. The treatment is effective in terms of disease free interval and survival. From January 2019 to June 2019, 33 HIPEC associated with CRS were performed under the supervision of a team of oncologists, surgeons and pharmacists.
Aim and objectives The aim of the work was to describe the management of HIPEC and CRS in an Italian hospital and the response of patients to treatment.
Material and methods At the time of surgery, 33 patients had an average peritoneal cancer index of 14.9. Complete cytoreduction was achieved in 29 patients. The drugs used during HIPEC were for:

- carcinosis with colic primitivity (42.5%): oxaliplatin, fluorouracil, leucovorin in one case; cisplatin, mitomycin in eight cases; mitomycin in three cases;
- carcinosis with gastric primitivity (21.2%): in six cases cisplatin, mitomycin; in one case cisplatin, paclitaxel;
- carcinosis with ovarian primitivity (21.2%): in five cases cisplatin, paclitaxel; in two cases cisplatin, doxorubicin;
- LAMN (9.0%), cisplatin and mitomycin;
- cholangiocarcinoma (3%), cisplatin, mitomycin;
- mesothelioma (3%), cisplatin, doxorubicin.

The average age of the patients was 55.8 years and 63.6% were women.
Results Mean ICU stay was 6.7 days, while the mean total hospital stay was 21.8 days. Inhospital mortality was 12%. The complication rate during hospitalisation (CTCAE ≥2) was 33.3%. Four patients (12%) underwent reoperation. Of the 29 patients discharged from hospital, 8 patients (27.6%) relapsed and, among them, 2 patients (6.9%) died. The mean OS calculated from the Kaplan–Meier curves of the discharged patients was 9.4 months and the mean DFS was 7.4 months. To date, the patients analysed have a survival rate of 81.8% (27 of the 33 patients are alive to date) and a DFS of 71.4% (20 of the 28 patients are currently free from illness).