4CPS-027 DESENSITISATION PROTOCOL FOR LIPOSOMAL AMPHOTHERICIN B: A CASE REPORT

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Background and importance Liposomal amphotericin B (ANBL) is an effective and safe treatment, however non-IgE-mediated hypersensitivity reactions have been described.
Aim and objectives To describe the ANBL desensitisation protocol in a patient with leishmaniasis who developed a demonstrated hypersensitivity reaction to the drug.
Material and methods A 16-year-old male, 85 kg, with severe corticodependent eosinophilic asthma, was admitted for prolonged fever, cholestatic hepatitis, splenomegaly and thrombocytopenia. Visceral leishmaniasis was diagnosed and ANBL treatment was started at 3 mg/kg intravenously (IV) to be administered over 2 hours.

During the perfusion the patient presented back pain and headache, which subsided when the perfusion was interrupted. Later, the perfusion was restarted at a slower rate; however, he developed erythematous plaques, discomfort, tachycardia and fever, as a result of which the perfusion was stopped.

The ANBL prick test was negative. It has been described that in non-IgE reactions there is a release of cytokines that trigger the symptoms of fever, hypotension, etc. Desensitisation to the antigen produced by the initial cytokine cascade is possible.

Second-line alternatives for leishmaniasis were not considered adequate, so it was decided to restart ANBL with a desensitisation protocol, which consisted of administering the drug in three steps, progressively increasing the infusion rate and concentration until administration of the full dose was reached. Low initial doses of antigen produce progressive depletion of activating signals and inhibition of mediator release, thus reducing clinical reactivity.
Results In our case, desensitisation consisted of only two steps: 1/10 dilution at a concentration of 0.2 mg/mL (25 mg/125mL) and the full dose at 1 mg/mL (250 mg/250mL) of ANBL in 5% glucose serum because there are no stability data for a more dilute preparation of ANBL (1/100).

The first dilution was administered in five perfusion rhythms starting at 2.5 mL/hour in 15 min, given good tolerance, the speed was progressively increased every 15 min: 5 mL/hour, 10 mL/hour, 20 mL/hour up to 40 mL/hour. Subsequently, the full dose of ANBL was administered in four rhythms, starting at 10 mL/hour, and increasing to 20 mL/hour, 40 mL/hour to 60 mL/hour, which was maintained until the full dose was reached. Premedication with paracetamol plus IV dexchlorpheniramine was necessary.
Conclusion and relevance The use of an ANBL desensitisation protocol has proven to be a safe option, which has allowed the administration of treatment without the appearance of adverse effects.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-029 PEMBROLIZUMAB, NIVOLUMAB AND ATEZOLIZUMAB: INCREMENTAL COST-EFFECTIVENESS RATIO

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Background and importance The high cost of immunotherapy makes it necessary to evaluate the results in real life, and the study of costs and economic evaluation can be useful tools to guide clinical decisions.
Aim and objectives To make an incremental cost-effectiveness ratio (ICER) analysis among the different available immune checkpoint inhibitors to treat non-small cell lung cancer (NSCLC) as second-line monotherapy.
Material and methods Retrospective and observational study. All patients with locally advanced or metastatic NSCLC treated with nivolumab, pembrolizumab and atezolizumab monotherapy as second-line treatment between April 2017 and April 2020 were included. Outcomes collected: treatment start and end date, administered mean dose, and mean number of cycles administered.

The drug costs were calculated based on the notified price. A 7.5% discount was applied for these prices as laid down in Spanish Royal Decree 8/2010 and 4% was charged as VAT (value add tax). In addition to the pharmacological costs, resource use was estimated: treatment administration in day hospital. Cost/cycle and overall cost (mean number of cycles administered multiplied by pharmacological and associated costs) were calculated. The endpoint was overall survival (OS).

Data were collected from the electronic clinical history, electronic prescribing software and pharmacy management programme. The Kaplan-Meier method was used to calculate OS. SPSS v17 was used to perform statistical calculations. We calculated the ??? for each strategy.
Results 104 patients were included in this study: N=40 nivolumab, N=29 pembrolizumab and N=35 atezolizumab.

Regarding effectiveness: the median OS was 6.4 (95% CI 2.81 to 9.98) months for patients treated with nivolumab; pembrolizumab-treated patients reached 8 months median OS (95% CI 3.05 to 12.94) and atezolizumab-treated patients achieved 6.33 months median OS (95% CI 4.4 to 9.1).

The overall cost of each treatment was: € 49 640.19 for pembrolizumab, € 42 887 for nivolumab and € 28 678.44 for atezolizumab.

ICER: nivolumab vs atezolizumab: € 2 435 753.14/life years gained (LYG); pembrolizumab vs atezolizumab: € 150 623.35/LYG; pembrolizumab vs nivolumab: € 50 648.92/LYG.
Conclusion and relevance The need to promote efficiency in the selection of treatments is one more reason to carry out an exhaustive comparative drug evaluation that includes the economic one. The effectiveness in terms of OS was greater for pembrolizumab; however, the cost analysis showed a greater benefit for atezolizumab.

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