Use of sacubitril/valsartan in patients with cardiotoxicity due to chemotherapy and heart failure

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Background & Aim: Heart failure is a term used to define a constellation of symptoms and signs that are commonly attributed to the inability of the heart to produce a cardiac output that meets the demands of the body. It remains a deadly disease, affecting between 1-2% of the population and is more common in the elderly, with around 6-10% of patients over 65 suffering from the condition. Sacubitril/valsartan (LCZ-696) is a combined neprilysin inhibitor and angiotensin AT1 receptor blocker approved in recent years for the treatment of chronic heart failure with reduced ejection fraction. In an area where there have been limited pharmacological advances in the last 10 years, this drug was a game changer and a great one. The optimal use of sacubitril/valsartan in clinical practice needs further investigation, in particular for patients with cardiomyopathy induced by chemotherapeutic toxicity as such patients are usually poorly represented in clinical trials.

Method: 490 consecutive patients (p) with a history of breast cancer, who received treatment with chemotherapy, were enrolled prospectively from June 2016 to June 2017. Ventricular dysfunction was detected through clinical, echocardiographic and laboratory tests. For the statistical analysis the SPSS was used.

Result: 490 patients, aged 69±7.2 years, female 482 (98.3%). 14 p presented ventricular dysfunction refractory to conventional treatment, all were optimally treated with beta-blockers, being with an average heart rate of 61±9 bpm, so in this group it was decided to rotate the angiotensin II receptor blocker treatment to the sacubitril/valsartan combination, whose titration was adjusted to the clinical response and the hemodynamic parameters. They were followed up at 14, 28 days and at 3 and 6 months. It was observed that at 3 months the patients improved the ejection fraction of the left ventricle (average 23% to 36%). Improvement of ProBNP 934 pg/ml (basal), with an average reduction of 30% at follow-up, normalizing in 100% of patients followed up at 3 months. Improvement of CF III-IV to CF I-II is observed in 100% of patients. The dose of loop diuretics was reduced in all patients.

Conclusion: In patients with ventricular dysfunction secondary to chemotherapy and refractory to the tried and tested therapy, sacubitril/valsartan has shown a good safety profile with excellent results in follow-up and it would be a promising alternative in this cohort of patients.

Biography
Vanesa Gregorietti is currently the President of the Cardiology Society of Buenos Aires. Deputy Chief of Cardiac Transplant and coordinates the area of pulmonary hypertension at El Cruce Hospital and Sagrado Corazon Sanatorium. He works in the area of heart failure and pulmonary hypertension at the Argentine Institute of Diagnosis and Treatment. She has received her Medical degree in the Faculty of Medicine from Favaloro University of Buenos Aires. She has completed specialization in Cardiology from Cardiology and Cardiovascular Surgery Service of Fundacion Favaloro. She has also completed her training in Advanced Cardiorespiratory Failure and Intrathoracic Transplantation in Transplant Services Favaloro Foundation, Stanford University, California, USA. She is also the Member of the Editorial Board of the Journal Insuficiencia Cardiaca. She is the Member of the Council of Heart Failure of the Argentine Society of Cardiology, Member of the Committee of Heart Failure and Pulmonary Hypertension of the Argentine Federation of Cardiology, Member of the Cardiac Transplant Advisory Committee for the Society Argentina de Transplante, the President of Sociedad de Cardiologia de Buenos Aires International Society for Heart and Lung Transplantation, Vice-President of the Society of Cardio-oncology of the Republic of Argentina.

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