

HEART TOXICITY STUDY IN PATIENTS USING RITUXIMAB AND TRASTUZUMAB

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Introduction

Advances in cancer treatment such as early diagnosis and the development of new therapies such as monoclonal antibodies (rituximab and trastuzumab) have contributed to the increase in the survival of cancer patients, however, in the long term, the appearance of lesions secondary to cancer treatment, mainly in the cardiovascular system, causes an increase in the morbidity and mortality of patients who survive treatment. From herein emerges Cardio-oncology¹, a new area of study concerned with the development of cardiotoxicity in patients undergoing cancer therapy. The objective of this study is to assess the cardiac toxicity of patients undergoing therapy with rituximab and trastuzumab in medical records from 2013 to 2018, and to investigate the association between cardiotoxicity related to the use of the studied drugs and the risk factors for cardiotoxicity, and the measures of monitoring of the unit.

Methods

Retrospective research, based on the analysis of medical records, of all cancer patients who received treatment with rituximab and trastuzumab, during the last 5 years, in a university hospital in the state of Rio de Janeiro. The data were recorded in a spreadsheet and the signs of suggestive cardiotoxicity, the data referring to the use of medications, the measures to monitor the cardiological risk adopted by the unit, gender, age, as well as comorbidities were recorded. The analysis of the causality of the reactions will take place through Naranjo's Algorithm². The project was submitted and approved by the Research Ethics Committee (CEP) under CAAE: 98429018.0.0000.5243 and approved on 02/14/2019.

Results and discussion

A total of 64 patients who used rituximab during the period 2013 to 2018 were identified in an analysis of medical records. 48 eligible patients were selected, and from the analyzed group, 18 patients (37.5%) presented cardiotoxicity associated with the recommended treatment. The main comorbidities and risk factors of patients undergoing therapy with rituximab are shown in Graphic 1. From a total of 62 patients using trastuzumab, 55 eligible patients were selected. Signs and symptoms of suggestive cardiotoxicity were identified in 28 patients (50.91%), between infusion reactions and or changes in complementary exams. The main comorbidities and risk factors of patients undergoing therapy with trastuzumab are shown in Graphic 2. Partial results of the project were published in the thematic edition of Cardio-oncology of the Revista Brasileira de Cancerologia^{3,4} in November and December of 2019.

Conclusion

In this study, a higher frequency of cardiovascular reactions was observed with trastuzumab than with rituximab. The most prevalent risk factors for cardiotoxicity for the 2 groups were: previous use of anthracyclines (doxorubicin), hypertension, radiotherapy, obesity and smoking.

Acknowledgments

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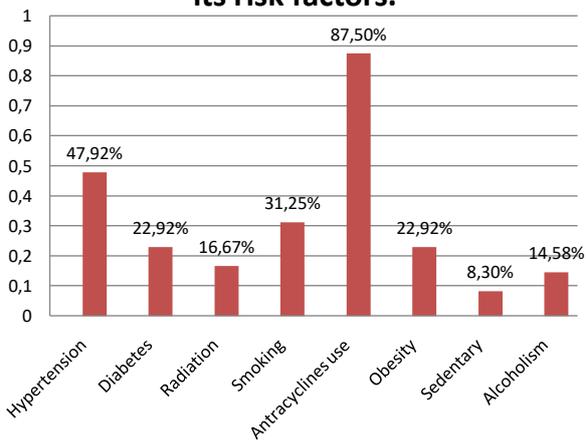
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Graphic 1

Main comorbidities found in patients who used rituximab and its risk factors.



Graphic 2

Main comorbidities found in patients who used trastuzumab and its risk factors.

