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## CARDIOTOXICITY OF FIRST-LINE CHEMOTHERAPY IN PATIENTS WITH ADVANCED NON-SMALL CELL LUNG CANCER

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**C**ardiotoxicity occurs during therapy with several cytotoxic agents and may be the dose limiting factor in cancer treatment. Furthermore, it can also be responsible for long term side effects and may cause severe morbidity in surviving cancer patients. Chemotherapy induced cardiotoxicity is not common but significant complication in patients with lung cancer. The aim of this study was to establish the frequency of cardiotoxicity in the patients treated with the first-line chemotherapy (gemcitabine/cisplatin and paclitaxel/carboplatin). This prospective study included 240 patients with cytologically or histopathologically confirmed non-small cell lung cancer (NSCLC) at the clinical stages III and IV. Cardiac toxicity was determined based on the presence of cardiovascular symptoms, changes in the electrocardiogram, elevated levels of N-terminal pro-B-type natriuretic peptide (NT-proBNP) and troponin T and a decrease in left ventricular ejection fraction. Most common cardiovascular toxic effects were increase in the level of NT-proBNP (44.85%), cardiac arrhythmias (26.18%), venous thromboembolism (19.9%) and decreased left ventricular ejection fraction (6.96%). Chemotherapy induced cardiotoxicity frequently occurs in patients with cardiovascular comorbidities. Patients with cancer, particularly those with known cardiac risk factors are at risk for development of cardiotoxicity and need careful assessment before initiation of chemotherapy. Balance between the effectiveness of chemotherapy and the risk of cardiotoxicity requires close cooperation of oncologists and cardiologists.

### Biography

Daliborka Bursac has completed her PhD from University of Novi Sad, Serbia. She is the Head of the Daily Hospital for the application of chemotherapy in the Institute for pulmonary diseases of Vojvodina in Sremska Kamenica. Also, she is the Assistant Professor of the Faculty of Medicine, University of Novi Sad. She has published more than 40 papers in reputed journals and has been serving as an Editorial Board Member of reputed.

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