

## Patient healthcare during cardiotoxic chemotherapy treatment

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**Introduction:** The leading causes of mortality and morbidity in developed countries worldwide are malignant and cardiovascular diseases. This paper focuses on cardiovascular complications associated with the therapy of malignant diseases. These adverse effects can develop during or immediately after treatment, as well as several years after the cessation of chemotherapy. Cardiotoxic chemotherapy is a type of cancer treatment that can affect all organs, but the heart is particularly sensitive due to its metabolism. These drugs work by damaging rapidly dividing cancer cells. However, they can also harm healthy cells, leading to side effects such as reduced cardiac function, cardiac arrhythmias, myocardial infarction, and heart failure. There are several ways to reduce the risk of cardiotoxic effects of chemotherapy, including using low doses of cytostatic drugs, using heart-protective medications, and regularly monitoring the heart's condition.<sup>1-4</sup>

**Case report:** An elderly female patient was referred to the Outpatient Clinic following a confirmed diagnosis of breast cancer. She was mobile, afebrile, without neck masses, skin induration, or redness of the areola. She had a history of bilateral adnexectomy and uterine fibroids. After obtaining consent and inserting an IV cannula, the patient began the AC chemotherapy protocol. Throughout the chemotherapy cycle, the patient was closely monitored. A nurse tracked vital signs (blood pressure, respiration) and watched for any undesirable cardiac arrhythmias. The patient received 3 cycles of chemotherapy without any cardiac side effects. One week after hospitalization, the patient visited the Cardiology Department due to chest pain and radiating pain in her left arm and was admitted to the Coronary Care Unit. Based on 12-lead ECG and laboratory findings, it was evident that she had suffered a myocardial infarction. A nurse conducted monitoring, administered prescribed therapy, and on the third day of treatment, the patient was discharged with instructions for further therapy and lifestyle changes. She continued to receive follow-up care through the outpatient oncology clinic.

**Conclusion:** The occurrence of cardiovascular disease during cancer treatment affects the disease outcome, as well as the quality of life after the cessation of chemotherapy. To provide the best care for patients undergoing chemotherapy, regular cardiological monitoring before, during, and after treatment is essential.

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