Pericardiocentesis in cancer patients: a 5-year single-center experience

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The goal: To analyze patients who underwent pericardiocentesis at the Intensive Cardiac Care Department, University Hospital Center Sestre milosrdnice, over the past five years, focusing on those with cancer-associated pericardial effusion and their clinical characteristics.

Patients and Methods: Medical records of all patients who underwent pericardiocentesis between 2019 and 2024 were reviewed. We analyzed patient demographics (median age, tumor type, disease stage), treatment status (active vs. non-active), treatment modality, effusion size, presence of cancer cells in the pericardial fluid, and hospitalization outcomes.

Results: A total of 60 patients were analyzed, 46% of whom had cancer-related pericardial effusion. The median age of these patients was 71 years (range: 42-87). The most common cancers were lung (n=13) and breast cancer (n=5). Of the 28 cancer patients, 11 had known metastatic disease (63% were in active treatment), and one was in surveillance for early-stage cancer. Additionally, in two patients, pericardial effusion indicated the progression of early-stage melanoma and breast cancer, while three others were newly diagnosed with malignancies. The most frequent treatment was chemoimmunotherapy (n=3), all in lung cancer patients treated with pembrolizumab. Other treatments included chemotherapy, antibody-drug conjugates, and dual anti-HER2 therapy. Cancer cells were detected in the pericardial effusion of 19 patients (67%), with a median effusion size of 27.5 mm (range: 10-50 mm). Four of the 28 cancer patients died during their hospital stay.

Conclusion: This pilot study highlights the need for improved education on the potential cardiotoxicity of immunotherapies, such as pericardial effusion requiring pericardiocentesis. Early detection and timely intervention for pericardial effusion is essential to ensure continuous anticancer therapy and improve the quality of life for cancer patients.[1-3]

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LITERATURE

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