

Pericardial effusion with tamponade as the sole manifestation of multiple myeloma relapse

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Introduction

Although pericardial involvement in lung and breast cancer is common, multiple myeloma (MM) affecting the pericardium is rare with no consensus on treatment. We present a case of MM relapse manifesting as pericardial effusion with tamponade.

Case Presentation

A 58-year-old female with IgG lambda MM who was treated with daratumumab, lenalidomide, bortezomib, and dexamethasone followed by hematopoietic stem cell transplant, thought to be in remission, presented with dyspnea and bilateral lower extremity swelling. Physical examination was significant for diminished heart sounds and bilateral lower limb pitting edema. A computerized tomography (CT) scan of the chest showed a large circumferential pericardial effusion. An emergent transthoracic echocardiogram (TTE) demonstrated evidence of tamponade.

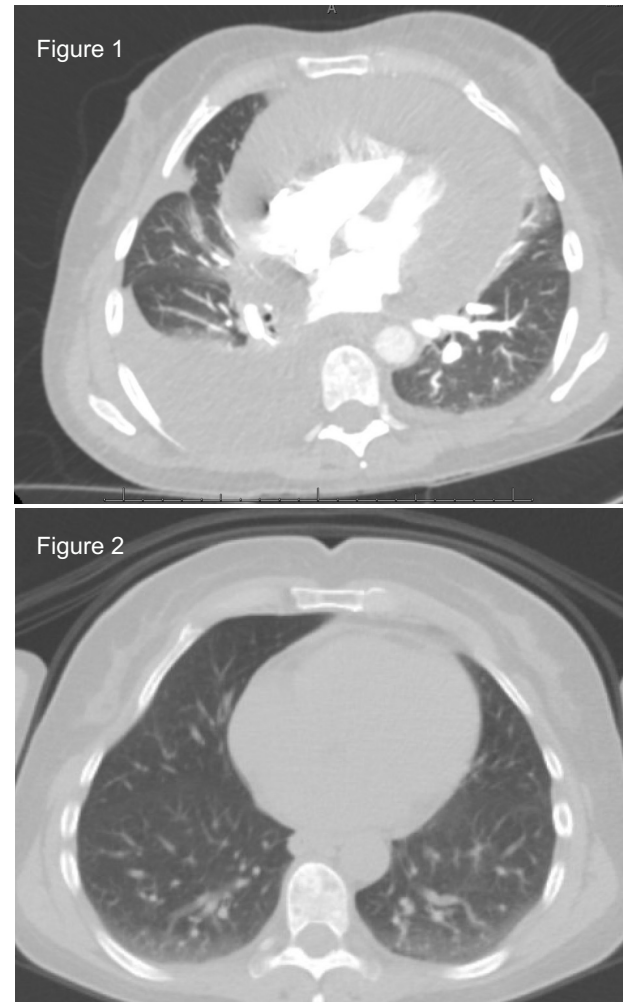


Figure 1: Massive pericardial effusion on CT Chest
Figure 2: CT Chest after pericardial effusion drainage

She was taken immediately to the catheterization lab for pericardiocentesis, which drained sanguineous discharge. Fluid analysis and flow cytometry of the specimen revealed monoclonal plasma cells, consistent with relapsed extramedullary MM. The Positron emission tomography (PET) scan did not show any evidence of active disease elsewhere and bone marrow biopsy showed no morphological evidence of MM. After discussing the patient in tumor board, a decision was made to start her on the prior regimen of daratumumab, lenalidomide, bortezomib, and dexamethasone given her previous excellent response. Follow-up TTE were negative for re-accumulation of pericardial effusion.

Discussion and Conclusion

Any malignancy can involve the pericardium, even MM. Early pericardiocentesis with fluid analysis is necessary for diagnosis and treatment of pericardial effusions.

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