ABSTRACT BODY

Background and Purpose

Large pericardial effusion (LPE) with subsequent tamponade is a rare complication following hematopoietic stem cell transplantation (HSCT). The incidence and pathogenesis is not well defined. LPE may develop with either sibling or matched unrelated donor. In late onset cases, it is believed to be secondary to chronic graft versus host disease (GVHD). Pericardiocentesis or pericardial window, and enhanced immunosuppression, can effectively control this complication. This case highlights potentially life threatening GVHD associated pericardial disease after HSCT.

Case Description and Outcomes

A 61 year old female with a past medical history of polycythemia vera myelofibrosis, underwent a matched, related donor allogeneic HSCT in August 2017. On January 10, 2018, GVHD prophylaxis with Tacrolimus was tapered. She presented February 27th with a rash, diarrhea, dyspnea with exertion, and decreased breath sounds. Chest x-ray showed significant bilateral pleural effusions and concern for pericardial effusion. Cardiac echo showed a moderate pericardial effusion without tamponade. Skin biopsy confirmed grade1 GVHD. Sigmoid biopsy confirmed grade2 GVHD. Prednisone was increased to 50mg and Tacrolimus 1mg bid was restarted. After 2 months symptoms improved and immunosuppression was again tapered. She presented to Cardiology in May with worsening lower extremity edema. Cardiac echo showed trivial pericardial effusion. She stopped her Tacrolimus October 23rd and remained on prednisone 5mg daily. On December 6th, she developed progressive edema along with increasing shortness of breath and new rash. A follow up echo demonstrated a large circumferential pericardial effusion and left pleural effusion. A pericardiocentesis was performed on December 20th with removal of 800cc of clear serous fluid. Prednisone dose was increased, but Tacrolimus was not restarted. An echo performed 2 months later showed a large pericardial effusion with evolving tamponade. A subxiphoid pericardial window was placed which drained serosanguinous and gelatinous pericardial effusion. She started Cellcept with no recurrence.

Discussion

Etiologies of LPE have been proposed: chemotherapy, infective pericarditis, malignancy, iron overload. LPE secondary to GVHD should be considered in late onset LPE responsive to intensive immunosuppression without alternative explanation.

References