

A Case Report: Persistent and asymptomatic cement embolism following vertebroplasty.

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Abstract Percutaneous vertebroplasty (VP) is relatively recent procedure in the treatment of painful vertebral fractures which commonly occurred in patients with multiple myeloma (MM). Pulmonary cement embolism (PCE) after VP is a well-known complication. Although treatment strategies of PCE are uncertain, asymptomatic PCE is considered to clinical follow-up without intervention such as anticoagulation and embolectomy. In that there is no elucidated natural course of asymptomatic PCE, there is an unmet need for duration to be follow-up. We report a case of a 58-year old who diagnosed with asymptomatic PCE following VP for compression fractures related to MM. Cement emboli was incidentally identified by the L-spine CT scan at the days of VP (Figure 1-1 A-D) whereas PCE were observed by chest CT scan at the 4 days after VP (Figure 1-1 E). Mismatched V/Q defects in middle and lower lung fields were also showed in perfusion scan (Figure 1-1 F). Despite no intervention, PCE was asymptomatic, but persistent during 1-year follow-up (Figure 1-2). This report suggests that natural presence of PCE might be persistent without spontaneous remission. Clinical follow-up for PCE might be considered over at least 1 year. Figure 1-1. Images for diagnosis of cement embolism (A) Cement emboli (red arrow) along the azygous vein (B) Pulmonary cements emboli with higher opacity than pulmonary arteries (red arrow) and accompanied bilateral atelectasis (C) Presence of ventilation/perfusion mismatch on both middle and lower lung fields. Figure 1-2. Persistent cement embolism without interval change (A) chest CT scan at diagnosis (B) Chest CT scan after 3-months of follow-up (C) Chest CT scan after 1-year of follow-up (D) Ventilation/perfusion scan at diagnosis (E) Ventilation/perfusion scan after 4-months of follow-up

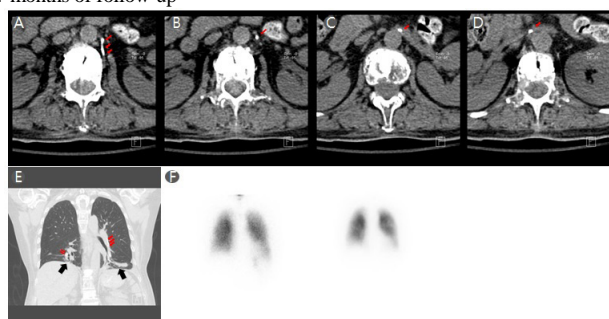


Figure 1-1

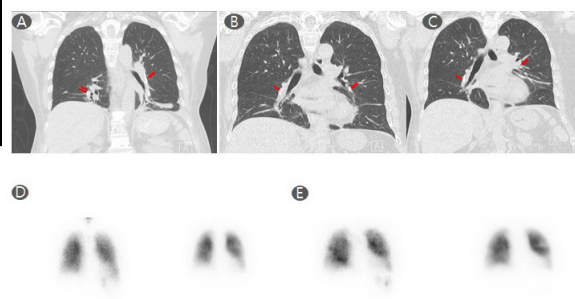


Figure 1-2

A case of recurrent PBM DLBCL with hemolytic anemia treated with chlorambucil and steroid

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Primary Bone Marrow Diffuse Large B Cell Lymphoma (PBM DLBCL) is a rare type of lymphoma. Some of the cases present with hemolytic anemia or hemophagocytic lymphohistiocytosis. Treatment failure with conventional chemoimmunotherapy was noticed in a few cases representing poor prognostic character. Furthermore, no effective treatment after first-line therapy was reported. Herein, we report a case of PBM DLBCL successfully treated with chlorambucil plus steroid combination as a fourth-line therapy after relapse. A 66-year-old female presented with autoimmune hemolytic anemia in February 2011. Initial work up showed no abnormal lymph nodes or hepatosplenomegaly except abnormal infiltration of large lymphocyte aggregates in the bone marrow. A Flowcytometry study showed positivity of CD19, CD20, CD22, CD25, CD38, HLA DR and FMC7. She achieved complete remission with 6 cycles of chemoimmunotherapy (R-CHOP: Rituximab, cyclophosphamide, adriamycin, vincristine, prednisolone). She remained in remission for 19 months before she relapsed. After she failed to achieve response with R-ICE (Rituximab, ifosfamide, etoposide) and ESHAP (etoposide, solumedrol, ara-C, cisplatin) treatment, we started chlorambucil plus dexamethasone combination (chlorambucil 6mg daily, dexamethasone 40mg for 1-4 day every 28days). Hemolysis resolved completely in two week with the treatment. A bone marrow biopsy taken 3months after starting the combination showed a complete remission. She took the treatment for 12 months, then took monthly dexamethasone for another 12 months before she finally stopped all treatment in May 2017. As of May 2, 2018 she remained in remission for 5 years. Chlorambucil is an alkylator commonly has been used for the treatment of low grade lymphoma or Chronic Lymphocytic Leukemia (CLL). Recent report showed the efficacy and safety of chlorambucil as a combination with rituximab for elderly patients with low grade lymphoma. In our case, after the second-line therapy she didn't take rituximab. However, chlorambucil combined with dexamethasone induced durable remission without significant side effects.

