Pleural plasmacytomas in a Patient with Multiple Myeloma Relapse

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Introduction: Pleural plasmacytoma in the setting of relapsed multiple myeloma (MM) is a rare yet serious condition, less than 10 cases have been reported in the literature.

Case Report: A 66-year-old woman with history of IgA lambda MM diagnosed 10 years ago. She remained in remission for about 9 years. She presented with dyspnea on exertion with decrease breathing sound in the right side of the chest. CXR showed moderate right side pleural effusion and PET/CT scan revealed multiple lytic lesions and PET-avid foci in the skeleton and pleural soft tissue lesions. Thoracoscopy with pleural mass biopsy confirmed the diagnosis of extramedullary plasmacytomas in the setting of multiple myeloma relapse. The patient was started on pomalidomide, bortezomib, and dexamethasone.

Discussion: Pleural plasmacytomas are extremely rare and account for around 3-6% of extramedullary disease in MM patients. FDG-PET/CT allows the examination of the whole body in a single and faster study, and can help identify active disease in patients with relapsed or refractory MM. Pulmonary nodules or pleural lesions can be diagnosed by performing a transbronchial biopsy, CT-guided needle biopsy, or a surgical biopsy through open thoracotomy, medical thoracoscopy (MT) or video-assisted thoracoscopic surgery (VATS). MT has excellent accuracy and is less invasive, thus has increasingly been used. The treatment of solitary extramedullary plasmacytomas, including pleural plasmacytomas, is with radiation. The treatment of extramedullary plasmacytomas in the setting of MM relapse is a multimodal approach using different strategies, such as advanced radiotherapy techniques, immunomodulatory agents and proteasome inhibitors.