A 57-year-old nonsmoking male with previous asbestos exposure presented with a year history of right pleural effusion and 2-month history of night sweats and increasing chest pain. A mini thoracotomy, biopsy, and pleurodesis were performed. Intraoperatively, 1 liter of viscous yellow fluid was aspirated, and widespread dense infiltration of the parietal pleura was noted.

The pleural biopsy confirmed malignant pleural mesothelioma (MPM) of epithelioid subtype (Figures 1A, B). His disease was staged with a computed tomography scan, which demonstrated disease in the right hemithorax only.

He underwent six cycles of chemotherapy consisting of pemetrexed (500 mg/m²) and carboplatin (area under the curve 5) every 3 weeks. Carboplatin was used due to preexisting hearing impairment. He tolerated it well with grade II anemia and grade I fatigue and nausea. A restaging computed tomography scan demonstrated a reduction of pleural thickness indicative of a radiologic partial response.

Given the good response to chemotherapy with no extrathoracic disease, an extrapleural pneumonectomy (EPP) was performed 4 weeks postchemotherapy. He had no significant postoperative complications.

A thorough examination of the pathologic specimens consisting of the right lung, pleura, hilar and mediastinal nodes, and port site demonstrated no residual malignancy. No adjuvant radiotherapy was given. He remains well without any evidence of recurrence 1 year postsurgery.

**DISCUSSION**

Treatment with cisplatin/pemetrexed in MPM has resulted in a 3-month survival benefit and improvement in quality of life. Although the objective radiologic response rate is about 40%, the majority of responses are partial rather
than complete. A search in the literature yielded no radiologic complete response (CR) in the cisplatin/pemetrexed combination\textsuperscript{1} but up to 4% achieving radiologic CR with carboplatin/pemetrexed in a phase II trial.\textsuperscript{2} Nevertheless, the CRs were not confirmed pathologically.

The treatment protocol of induction chemotherapy followed by EPP allows us to examine the pathologic response after chemotherapy. None of the studies confirmed a pathologic CR after three to four cycles of chemotherapy with cisplatin/gemcitabine\textsuperscript{3} or carboplatin/gemcitabine.\textsuperscript{4} Krug et al.\textsuperscript{5} recently reported their phase II trial using cisplatin/pemetrexed followed by EEP and radiotherapy. Three pathologic CRs were reported, which represented 5% of patients undergoing EPP.

Despite the often difficult pathologic diagnosis of mesothelioma, we believe that our patient had MPM, given the two independent pathologic reviews of the initial biopsy confirming the invasive nature of the tumor and immunohistochemical evidence of mesothelial origin, as well as the supportive clinical picture of increasing pulmonary symptoms, and the typical radiologic changes. Furthermore, the radiologic response seen after chemotherapy lends further support to a malignant process rather than a benign one.

Therefore, we believe that this is the first reported case of a pathologic CR in a patient with MPM after carboplatin/pemetrexed. In patients whom cisplatin is contraindicated, carboplatin seems to be a reasonable alternative in combination with pemetrexed.

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