Interventions to Treat Malignant Pleural Effusions

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Malignant pleural effusions (MPEs) are common complications that occur with advanced stages of cancer. In general, they indicate a poor prognosis and greatly affect quality of life (QOL). The treatment goal of MPEs is to provide relief of symptoms. The standard treatment for MPEs is talc pleurodesis; however, indwelling pleural catheters have become more frequently used. This article focuses on current management strategies for MPEs and assesses their influence on QOL.

At a Glance
- Symptoms of malignant pleural effusions (MPEs), which involve the accumulation of fluid in the pleural space, include dyspnea, shortness of breath, chest pain, and other issues that decrease functional status.
- Treatment for MPEs should be palliative, achieving immediate symptom relief and improved quality of life.
- The optimal treatment strategy for MPEs should have minimal side effects, require minimal or no hospitalization, and have low rates of recurrence.

Pathophysiology
To comprehend treatment methods, understanding the pathophysiology behind MPEs is important. The space that exists between the visceral and parietal pleural layers, which is known as the pleural space, normally contains 10–20 ml of pleural fluid (Thomas & Musani, 2013). However, the pleural space inappropriately accumulates more fluid when the hydrostatic pressures and/or vascular permeability increase (Kara, Alzafer, Okur, & Halezeroglu, 2013). This increase can be attributed to the tumor blocking the lymphatic system and causing a barrier to drainage. Another mechanism for MPE formation is the other that increases vascular permeability increase (Kara, Alzafer, Okur, & Halezeroglu, 2013).