Diffuse malignant pleural mesothelioma: Part I. An Overview of Diagnosis, Staging, and Treatment Options

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Diffuse malignant mesothelioma is an uncommon, aggressive malignancy that occurs most often in the pleura of the lung. This article reviews the risk factors, incidence, signs, symptoms, diagnosis, staging, treatment options, and follow-up care of diffuse malignant pleural mesothelioma (DMPM). Curative approaches for treating DMPM are limited, and survival rates rarely exceed two years. Treatments such as surgery, chemotherapy, and radiotherapy have shown limited benefit in improving survival. Extrapleural pneumonectomy combined with multimodal treatments provides a potentially curative approach, and newer efforts in multimodality therapy are promising. Clinical trials utilizing intrapleural chemotherapeutic agents, photodynamic, gene, and immunotherapies currently are under way.

Key Words: mesothelioma; carcinogens, asbestos; pulmonary surgical procedures; combined modality treatment

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to develop DMPM than women because they are employed more frequently in work settings where asbestos products are used (Churg, 1988). However, many women diagnosed with DMPM have had secondary exposure to asbestos when family members who have been exposed wear contaminated clothing home (Dodson, O’Sullivan, Brooks, & Hammar, 2003). DMPM is diagnosed most often in individuals aged 50–70 years (mean age = 60 years) (Calvert & Plante Washart), and the average survival for those diagnosed with the disease is 4–18 months (Antman et al., 2001; Calvert & Plante Washart).

Spontaneous cases of DMPM are rare; however, this malignancy may result from genetic abnormalities or exposure to other environmental carcinogens, such as zeolite, erionite,