Chapter 34

MALIGNANT PERICARDIAL DISEASE

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INTRODUCTION

Pericardial involvement of malignant disease can include several clinical entities. These may incorporate asymptomatic chronic pericardial effusions, constrictive pericarditis, effusive constrictive pericarditis, or pericardial tamponade. A high index of suspicion is required to recognize the different aspects of malignant pericardial disease,since their occurrence is more frequent than is commonly appreciated.

INCIDENCE AND ETIOLOGY

The incidence of malignant pericardial involvement has variously been reported in the literature to be from 1.5 % to 21% of autopsies in patients with an underlying malignancy (Maisch, Ristic, & Pankuweit, 2010). When considering neoplastic pericardial disease, it is important to recognise that about 50% of patients with symptomatic pericardial disease and underlying malignancy may have nonmalignant pericardial disease encompassing; radiation therapy,viral pericarditis, hypothyroidism, drug-induced pericarditis, opportunistic infection, autoimmune disorders, as well as idiopathic pericarditis. In a report of 31 patients with cancer and pericardial disease, the diagnoses included malignant pericardial disease (58%), benign idiopathic pericarditis (32%), and radiation-induced pericarditis (10%) (Posner, Cohen, & Skarin, 1981). Malignant pericardial diseases can be divided into primary and secondary neoplasms (Table I). Primary tumors of the pericardium are extremely rare and include;mesotheliomas, fibrosarcomas, lymphangiomas, angiosarcomas, hemangiomas, malignant teratomas, neurofibromas and lipomas.

Of the secondary (metastatic) neoplasms involving the pericardium, lung tumors (squamous, adeno, oatcell), breast, leukemia, Hodgkin and non-Hodgkins lymphoma incorporate over 80%. Pulmonary and breast neoplasms are the two

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have been evaluated for this scope, but the most used are platinum and triethylenethiophosphoramide (thiotepa), an anticancer agent with sclerosing properties.

PROGNOSIS

The potential for prolonged survival is a significant issue when choosing the therapeutic intervention for an individual patient with a suspected pericardial effusion. Most patients with a symptomatic neoplastic pericardial effusion have a short life expectancy (median two to four months) (Dequanter, Lothaire, Berghmans, & Sculier, 2008). However, prognosis may be better in certain subsets of patients, such as those without malignant cells in the pericardium (at least in the setting of non-small cell lung cancer), hematologic rather than solid tumors, breast cancer rather than lung cancer, and in patients who are candidates for systemic therapy or whose malignancy is otherwise well controlled. With improved systemic chemotherapy and molecularly targeted therapy for non-small cell lung cancer in recent years, the prognosis for such patients has improved (Li et al., 2014). Pericardial cytology remained an independent marker of survival. There are no randomized controlled trials as regard optimal treatment for patients with malignant and symptomatic pericardial effusion. Clinicians and investigators must continue to evaluate for safe, flexible, and durable modes to palliate these patients while simultaneously containing costs and preserving the quality of their limited remaining life span.

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