Thymoma: Potential for Life-Threatening Cardiac Invasion

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This 59-year-old man with no other comorbidities presented with a 5-month history of exertional dyspnea and a 2-month history of peripheral edema. Chest radiography revealed bilateral pleural effusions. Subsequent computed tomography of the thorax (Fig 1) showed an anterior mediastinal mass with invasion into the SVC and innominate veins; it had infiltrated the heart occupying the entire right atrial and ventricular chambers. Panel A shows the 6.1-cm anterior mediastinal mass with SVC invasion. Panel B shows obliteration of the right atrial and ventricular chambers. Panel C shows an echocardiographic representation of the mass within the right heart (A = aorta; E = pleural effusion; LV = left ventricle; RA = right atrium; RV = right ventricle; SVC = superior vena cava; T = tumor). Biopsy of the anterior mediastinal mass confirmed this to be a thymoma. The multidisciplinary team concluded that this stage 3 thymoma was at an inoperable stage; it was managed with cisplatin chemotherapy. Over a 2-month period, there was no response to chemotherapy or further metastasis. Palliative radiotherapy was the only feasible course of action available to control tumor burden. However, the patient died before radiotherapy, 6 months after presentation.

Thymoma is thought to be benign tumor originating within the thymus; it is associated with myasthenia gravis and has an effective outcome following surgical resection. The worst prognosis remains with stage 3 or 4 tumors with local invasion, which emphasizes the need for a prompt diagnosis and management. Thymoma has often been misconceived as a benign disease, but this case and others [1] emphasize the life-threatening spectrum of this condition.

Reference