CASE REPORTS

Thymic Carcinoid—A Case Report and Review of the Literature

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ABSTRACT: We report herein a case of a patient with thymic carcinoid who was operated on twice and has been followed for 9 years. In 1979, the original tumor was removed through an emergency left thoracotomy incision done for a hemothorax caused by an anterior mediastinal biopsy. Tumor recurrence was found 6 years later and removal carried out through a median sternotomy. The patient has been working and enjoying life following radiation and chemotherapy for a total of 9 years after his first operation. Recurrent thymic carcinoid has been thought to carry a poor prognosis, but this successfully treated case has been followed up for a long time after the removal of his recurrent tumor. We present this case and discuss other such cases reported in the Japanese literature.

KEY WORDS: thymus, carcinoid, mediastinum

INTRODUCTION

The concept of the thymic carcinoid was first established by Rosai in 1972 and its origin is currently believed to arise from the thymic cells of the neural crest. In 1969, Matsuda reported the first definite case of a thymic carcinoid in Japan, however, a few cases beforehand had been reported as thymoma with hormone secretion, with a confusion between thymoma and thymic carcinoid. The thymic carcinoid is a rare disease in comparison with the gastrointestinal carcinoid and not everything about this disease is yet clearly understood. Only 44 cases of thymic carcinoid, including the present case, have been reported in the Japanese literature.

CASE REPORT

A 54 year old man was admitted to a local hospital for left chest pain and dyspnea in 1977, however, he became asymptomatic within a few weeks and was subsequently discharged. The etiology was still unknown at this time. The same symptoms occurred 2 years later and he was readmitted to the same hospital. A chest X-ray film revealed an anterior mediastinal tumor (Fig. 1) and he was transferred to Nagoya National Hospital. A biopsy of the tumor was performed, however, a left hemothorax resulted and the patient was referred to our surgical department where an emergency left thoracotomy was performed. A tumor was found in the superioroanterior mediastinum, aris-
ing from the left lobe of the thymus. The excised tumor weighed 100 g and was 7.0 cm in its maximum diameter. 5-FU was administered orally at 600 mg/day postoperatively and the patient was discharged on the 76th day after his operation. He did well for 3 years after his discharge, however, the left thoracic pain and palpitation reappeared and he was readmitted to the local hospital, where he received conservative therapy in November, 1982. The same attack of symptoms occurred repeatedly thereafter and he was readmitted again to the same hospital in September, 1984. A recurrence of the thymic carcinoid was highly suspected by CT scan (Fig. 2) and he was referred to our hospital in January, 1985, where a median sternotomy was performed on 20th February, 1985. The tumor occupied the anterior mediastinum and was attached to the pericardium, the upper lobe of the right lung and the ascending aorta. The tumor was resected with part of the right upper lobe and part of the pericardium. However, the tumor near the right pulmonary artery was impossible to remove and radiation therapy was given after the operation (Liniac, 50 Gy). Left supraclavicular lymph node swelling appeared after the operation and a biopsy of the lymph node confirmed the diagnosis of metastasis of the carcinoid. Additional irradiation to this site was thus performed (50 Gy) and 5-FU administered orally at 200 mg/day for 3 months before he was discharged. The patient has been doing well since then, although 1 year following his discharge, a coin lesion appeared on his chest X-ray film. However, the size of this lesion is not increasing and he is still being followed up in an out-patient clinic. His serum hormone levels have been normal since his first operation.

**Pathological Findings**

Macroscopically, the primary tumor, which was 7.0 × 6.0 × 3.5 cm in size, was soft and solid with areas of necrosis, whereas the recurrent tumor, being 10.0 × 4.5 × 1.5 cm in size, was elastic hard and brown. Microscopically, the primary tumor was composed of uniform cells with round nuclei and eosinophilic cytoplasm. The cellular pattern of the tumor showed solid nests, partially seen in the manner of a rosette or ribbons and festoons. The tissue was composed of uniform cells with round nuclei and eosinophilic cytoplasm. The cellular pattern of the tumor showed solid nests, partially seen in the manner of a rosette or ribbons and festoons.

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**Fig. 1.** A chest X-ray film taken before the first operation. The tumor protrudes into the left thoracic cavity.

**Fig. 2.** Tissue obtained from the first operation. (H&E, ×100 original magnification)

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