Case report

A case of recurrent pulmonary mucinous cystadenoma

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Abstract

A pulmonary mucinous cyst adenoma is rare and there has been no report of the recurrence. We report a case of a 56-year-old female who had recurrent pulmonary mucinous cystadenoma. She had previously received a partial resection of the lung for a pulmonary mucinous cystadenoma 20 years ago. On this admission, a chest X-ray and CT scan revealed a large pulmonary mass, and a lung resection was performed. The resected lesion was histologically confirmed as mucinous cystadenoma. At 2 years to date after the second operation, the patient has no recurrence.

Keywords: Pulmonary mucinous tumor; Pulmonary mucinous cystadenoma; Recurrent mucinous cystadenoma

1. Introduction

A mucinous cystadenoma is commonly located in the pancreas, ovaries and appendix, and is rarely found in the lung. Here, we report a rare case of recurrent pulmonary mucinous cystadenoma.

2. Case description

A 56-year-old female presenting palpitation was admitted to our hospital. On admission, the palpitation was diagnosed as paroxysmal supraventricular tachycardia. A chest roentgenogram showed a round mass in the left lower lung field. A computed tomography scan confirmed a heterogeneous mass in the left lower lobe without mediastinal lymph nodes enlargement (Fig. 1). A bronchoscopic biopsy showed no neoplastic cells. All the laboratory data were within normal ranges. She had received a wedge resection for a tumor in the left lung 20 years ago previously. Pathologically, the detail had not been well documented, but it was considered to be a benign. In this present case, we performed thoracotomy. The lesion was located in the lateral basal segment of the left lung, and the previous suture line was found on the surface of this tumor. The tumor was totally resected by a partial resection of the left lower lung. Although more detail could not be pathologically diagnosed with the frozen section, the tumor was not reported to be a malignant.

Therefore, this operation was decided to be finished with the partial resection. The tumor was a gelatinous mucin-filled cyst measuring 5.0 × 2.8 × 3.5 cm. The surrounding lung parenchyma appeared to be normal. It was sharply demarcated, and the septa inside the cyst were very thin. Microscopically, the cyst was filled with dense mucus with very few lining tumor cells. It was partly lined by single-layered columnar epithelial cells or goblet cells. Inflammatory cell infiltrate and inflammatory granulation formation were noted around the cyst. No mitotic figures were identified. No cancerous cells were found (Fig. 2). Immunohistochemical staining for carcinoembryonic antigen was negative. The histopathological features were analogous to those of the previous pathological sections. The post-operative course was uneventful, and the patient has survived without recurrence for 24 months to date after the second operation.

3. Discussion

Among pulmonary mucinous tumors, bronchogenic cyst and adenocarcinoma of bronchioalveolar type producing extensive mucin are well known, but neoplastic mucinous cystic tumors are rare. Gowar had described it as ‘an unusual mucous cyst’[1], and then several cases have been reported [2-4]. A mucinous cystadenoma is a grossly well-demarcated peripheral cyst filled with gelatinous mucin, and it is said to be a good prognosis after complete resection. Here, we report a mucinous cystadenoma that reappeared after 20 years. Although the first surgical procedure was recorded to resect a tumor completely, it might be discussed that this tumor was not completely removed at the first operation. However, it was difficult to decide whether this present tumor was identical from the first one. It was noteworthy...
that a mucinous cystadenoma had reappeared with slow growth 20 years later, and the operation was required. We did not perform the pulmonary lobectomy at this case, because the surgical resected margin was clear. However, we consider that pulmonary lobectomy may be a safer procedure, considering the possible recurrence and the size of the tumor. Further follow-up should be required in order to appropriate this surgical procedure. This case warns us to investigate further biological feature and demonstrate the reliable surgical procedure.

Fig. 1. Computed tomography scan shows a well-demarcated mass in the left lower lobe.

Fig. 2. The cyst was filled with dense mucinous material and the cyst wall contained inflammatory cells (hematoxylin and eosin, ×10).

References