Excision of a Recurrent Pericardial Cyst Using Video-Assisted Thoracic Surgery*

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A recurrent pericardial cyst manifested as an enlarging cardiophrenic cyst and was reexcised with the aid of video-assisted thoracic surgery. Video-assisted thoracic surgical excision can be a safe and effective approach, but complete excision should be performed to avoid recurrence.

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Key words: recurrent pericardial cyst; video-assisted thoracic surgery

Abbreviation: VATS = video-assisted thoracic surgery

Pericardial cysts are generally asymptomatic malformations of the pericardium and are discovered incidentally on routine chest roentgenograms as slowly enlarging, right-sided cardiophrenic angle masses.1 Since pericardial cysts follow a benign course in the majority of cases, most authorities recommend excision only in symptomatic cysts and conservative management in asymptomatic cases. Therefore, surgery for recurrent pericardial cysts is rare. A recurrent pericardial cyst was resected with the aid of video-assisted thoracic surgery (VATS), and the findings in this case are reported here.

CASE REPORT

A 22-year-old woman underwent excision of a pericardial cyst by VATS at another hospital in 1995 and was referred to Saga Medical School, Saga, Japan, because of an asymptomatic right cardiophrenic angle cyst that had increased in size steadily as seen on chest roentgenograms after the operation. A CT scan of the chest revealed a well-defined cyst in the right cardiophrenic region along the previous stapling line (Fig 1). Excision using VATS was indicated because of the progressive increase in size of the cyst even though the patient was asymptomatic. At the time of operation, the patient received general endobronchial anes-

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thosia with the use of a double-lumen tube. The camera was inserted through a 15-mm flexible port placed in the sixth intercostal space.

Inspection of the chest showed a thin-walled recurrent pericardial cyst measuring 4 × 3 cm lying along the previous stapling line (Fig 2, left). Two additional working ports were placed through the eighth intercostal space on the anterior and posterior axillary line, and a 5-cm access minithoracotomy was placed on the midaxillary line; these were used for the insertion of dissecting instruments. The cyst was entered and was found to adhere to the lung, and so the lung was divided with a stapling instrument. The recurrent pericardial cyst with the surrounding normal pericardium was excised (Fig 2, right). The resulting pericardial defect was corrected by covering it with a polytetrafluoroethylene sheet using several interrupted sutures which were tied extracorporally through the ports and access minithoracotomy. After a 24F chest tube was positioned in the apex via one of the operative ports, the two remaining port incisions and minithoracotomy were closed in the usual manner. Histologic evaluation confirmed that the lesion was a pericardial cyst. The patient had an uneventful postoperative course. The chest tube was removed on postoperative day 1, and the patient was discharged home the following day. Two years later, she is doing well without any radiographic evidence of recurrence.

COMMENT

Thoracoscopic techniques have been used with success in the diagnosis of mediastinal cysts,2 and recently surgical management of pericardial cysts has been easily accomplished via thoracoscopy when excision is indicated.3 This surgical approach is similar to that described for thoracoscopic pericardial resection in the management of pericardial effusion. With this technique, the pericardial cyst is approached from the side on which it is located, and
following initial exploration, the cyst is excised. If the base of the cyst is densely adherent to the pericardium, it may be left in situ and cauterized. However, it is not known whether or not leaving a portion of the cyst base in place will cause future problems. Because pericardial cysts are relatively common and usually asymptomatic, surgery is generally not indicated unless the diagnosis of a cyst cannot be made by radiography or cyst puncture.

This thoracoscopic approach seems to be the best method for pericardial cyst excision although the present case demonstrated that complete excision, including removal of the surrounding normal pericardium, should be performed in order to avoid recurrence, especially when VATS is employed for treatment of a symptomatic pericardial cyst.

REFERENCES