Case report - Thoracic general

Bilocular pericardial cyst in an aberrant location

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Abstract

Pericardial cysts classically are found in the right or left cardiophrenic angle and rarely are located outside of this location. An 82-year-old man presented with an asymptomatic cystic mass on chest CT-scan located in the upper right mediastinum and measuring 7 × 6 × 4 cm. A follow-up chest CT-scan 12 months later showed that the cyst had increased in size to where it now measured 10 × 9 × 8 cm and was noted to be dislocating and compressing the superior vena cava. The patient underwent surgical excision because of the uncertain diagnosis and the compression of contiguous organs. Two cystic masses were able to be completely excised intact. A definitive diagnosis of double pericardial cyst was histopathologically confirmed. Radiological findings of a pericardial cyst in the upper mediastinum are extremely rare. In particular there have been no reports of bilocular or double pericardial cysts.

Keywords: Pericardial cyst; Mediastinum

1. Clinical summary

An 82-year-old man with a history of systemic vasculopathy presented with an asymptomatic cystic mass on chest CT-scan measuring 7 × 6 × 4 cm. CT-scan had been performed on the base of an X-ray previously done during preoperative evaluation for inguinal hernia repair. A follow-up chest CT-scan 12 months later showed that the cyst had increased in size to where it now measured 10 × 9 × 8 cm and was noted to be dislocating and compressing the superior vena cava and the azygos vein (Fig. 1). A transesophageal echocardiogram confirmed a large fluid-filled mediastinal mass. It was recommended to the patient that he undergo surgical excision because of the uncertain diagnosis and the compression of contiguous organs.

The surgical procedure was begun by introducing two trocars with the intent to perform the procedure via a thorascoscopic technique. Dense pleural adhesions were encountered and a 6-cm muscle sparing right thoracotomy incision was performed. Upon entering the chest, a thin-walled cystic mass was noted in the paratracheal location compressing both the superior vena cava and the azygos vein (Fig. 2). The cystic mass was able to be completely excised intact. A second smaller cyst, not seen on the CT-scan, was found posterior to the larger cystic mass in the medial aspect of the mediastinum, adjacent to the aortic arch. This smaller cystic mass was also excised. Histologic examination revealed a mesothelial-lined cystic lesion and the diagnosis of double pericardial cyst was confirmed. The patient was discharged from the hospital on the fourth postoperative day.

2. Discussion

Pericardial cysts classically are found in the right or left cardiophrenic angle and rarely are located outside of this location [1]. In reviewing the literature from 1929 to 1985, Stoller et al. noted only 34 cases of pericardial cysts in aberrant locations [2]. From 1985 to the present only occasional cases of atypically located pericardial cysts have been reported. However, to our knowledge, there have been no reports of bilocular or double pericardial cysts. In our patient, the diagnosis of bilocular cyst was made only

Fig. 1. CT-scan. Giant cyst in upper right mediastinum.
at the time of operation because the membrane between the cystic lesions was thin and not identifiable on the CT-scan or on the transesophageal echocardiogram.

3. Conclusion

Surgical resection is widely accepted as the treatment of choice when a patient has symptoms related to a mediastinal mass or the diagnosis is uncertain [2]. We agree with Mouroux et al.’s contention that asymptomatic cysts should be considered for resection when the lesion is large and there is compression of adjacent structures, and particularly when the CT-scan demonstrates progressive enlargement. If feasible, it is our opinion that these lesions should be resected using minimally invasive thoracoscopic techniques [3, 4].

References