Pseudo-pseudo-pseudotumor of the Lung

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Benign lesions may simulate bronchogenic carcinoma by virtue of radiologic appearance or false-positive cytologic studies. A lung opacity initially suspected to be malignant was, on review, considered to be a loculated effusion. Needle biopsy yielded cells which appeared malignant. The resected lesion was a benign infarct.

The term pseudotumor has been applied to benign lung lesions that resemble malignant tumors in roentgenographic characteristics; the usual cause is a loculated interlobar pleural effusion which presents as a circular mass. If a lesion which was originally considered a pseudotumor is subsequently found to be a malignant neoplasm, the term pseudo-pseudotumor would seem to be appropriate. We report a case which might best be characterized as a pseudo-pseudo-pseudotumor of the lung.

CASE REPORT

A 62-year-old white male smoker was hospitalized January 22, 1983 for a subendocardial myocardial infarction complicated by congestive heart failure. Initial chest roentgenogram revealed bilateral pleural effusions and a small, elongated opacity situated far posteriorly in the right lung. This lesion was not present on a chest roentgenogram obtained six months earlier. After review of several roentgenograms, it was concluded that the opacity was a loculated effusion at the upper end of the major fissure. After clearing of the pleural effusions, the chest roentgenogram on March 11, 1983 showed the lesion was still present (Fig 1). It was considered to be a pseudotumor, even though the lower end was rounded and not as tapering as the typical loculated effusion. Computerized tomographic examination (Fig 2) May 18, 1983 showed an elliptical mass lesion which abutted the visceral pleura but was not pleural-based in all cuts. Needle aspiration biopsy of the lesion revealed atypical cells considered suspicious for squamous cell carcinoma. A provisional diagnosis of bronchogenic carcinoma was made and the lesion was now considered to be a pseudo-pseudotumor. It was a parenchymal consolidation running parallel to the major fissure.

The lesion was resected on June 28, 1983. The pathologic diagnosis was infarct of the lung, with no evidence of malignant or benign neoplasm in the lesion or regional lymph nodes. The lesion was now classified as a pseudo-pseudo-pseudotumor of the lung. The patient has had no recurrence of tumor or pseudotumor since.

DISCUSSION

False-positive cytologic diagnoses of bronchogenic carcinoma have been made in patients with pulmonary infarction, and cells which resemble tumor cells have been recovered on needle aspiration biopsy of pulmonary infarcts. Hampton and Castleman correlated postmortem chest roentgenograms with autopsy findings in 400 patients with pulmonary lesions and found three cases of pulmonary infarction erroneously diagnosed as bronchogenic carcinoma antemortem. As pulmonary infarction and bronchogenic carcinoma can share similar clinical and roentgenologic

![Figure 1. Cropped posteroanterior and lateral chest roentgenograms demonstrating an elliptical lesion posteriorly in the vicinity of the oblique fissure of the right lung (arrows).](http://journal.publications.chestnet.org/pdfaccess.ashx?url=/data/journals/chest/21486/ on 06/21/2017)

Ostial Left Main Stenosis following Repair of a Ruptured Sinus of Valsalva Aneurysm*

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A patient complained of angina pectoris nine months after surgical repair of an aortic right atrial fistula and mitral valve replacement. Subsequently, he was shown to have a new obstruction of the ostium of the left main coronary artery. This case illustrates the need to consider this syndrome in the differential diagnosis of postoperative complaints of chest pain, especially following an operation which involves direct cannulation of the coronary arteries.

The new onset of angina pectoris following noncoronary open heart surgery should raise the suspicion of iatrogenic coronary artery disease, especially following a procedure in which intraoperative myocardial perfusion was maintained via direct cannulation of the coronary arteries. The following patient complained of progressively severe chest pain several months after operative repair of a ruptured sinus of Valsalva aneurysm, and cardiac catheterization revealed the development of a new severe obstruction of the ostium of the left main coronary artery.

CASE REPORT

A 61-year-old Hispanic man presented with the onset of angina pectoris. Nine months prior to this complaint he underwent cardiac catheterization for evaluation of progressive dyspnea and was found to have significant mitral regurgitation and a communication between the aorta and right atrium/right ventricle suggestive of a ruptured sinus of Valsalva. Left ventricular function was normal (ejection fraction 71 percent), and the coronary arteries were without obstruction.

The patient was referred for surgery. Because of substantial retrograde flow through the fistula, myocardial protection was achieved by the administration of cold potassium cardioplegia (St. Thomas solution) infused directly into the coronary ostia via intermittent insertion of smooth tipped, hand-held metal cannulae. Cannulation was performed three times at 30 min intervals, with infusions lasting 2 to 3 min at a mean monitored infusion pressure of 70 to 80 mm Hg. The sinus of Valsalva fistula originated from a small aneurysmal sac in the right aortic sinus and extended to the junction between the right atrium and right ventricle. This was repaired by insertion of pledgeted sutures on both the aortic and atrial sides. The mitral valve leaflets appeared myxomatous and multiple ruptured chordae tendineae were present. The mitral valve was replaced with a Starr-Edwards prosthesis. The patient tolerated the procedure well.

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