Recurrent Left Atrial Myxoma

Report of a Case

By Om P. Bahl, M.D., G. Charles Oliver, M.D., Thomas B. Ferguson, M.D., Nikolaus Schad, M.D., and Brent M. Parker, M.D.

SUMMARY

Recurrence of a left atrial myxoma 6 years after the initial resection is reported. This, to our knowledge, is the second such case, and it emphasizes the need for a complete resection of the underlying atrial septum or atrial wall in cases of myxoma.

Additional Indexing Words:
Intracardiac tumors
Emboli

MYXOMA is an infrequent but important intracardiac lesion which occurs most often in the left atrium. Although it has been suggested that atrial myxomas merely represent degenerated thrombi, evidence strongly favors a neoplastic origin.1

Since the first successful removal of an intracardiac myxoma in 1955,2 numerous reports dealing with surgical resection of these tumors have appeared in the literature.3-9 In 1966, Newman and associates8 reviewed 58 attempted excisions of left atrial myxomas and reported no recurrence, and Firor's group4 reported a 5 to 10-year follow-up of their three operative cases with no reappearance of the tumor. They concluded that simple excision of atrial myxomas was adequate and that a resection of the adjacent atrial septum or wall was unnecessary. Similar opinions have been expressed by others,5-6 based on the absence of recurrence and a lack of invasion of the myxoma beyond the elastic fibers of the second endothelial layer.

We recently had the opportunity to study a patient in whom a left atrial myxoma reappeared 6 years after the initial surgical resection. This, to our knowledge, is the second reported recurrence, the first being a case described by Gerbode and his co-authors.7

Report of Case

S. C., a white housewife, was well until 1962 (age 34) when she suddenly developed right hemiplegia. This was considered to be due to a cerebral embolus secondary to rheumatic heart disease, although she gave no history of rheumatic fever. Three months after the first episode severe pain began abruptly in her left leg, and she was admitted to Barnes Hospital for the first time on June 14, 1962. Positive physical findings were limited to a soft apical pansystolic murmur, absence of the popliteal and pedal pulses on the left with cyanosis of the leg, and right hemiplegia. A diagnosis of left femoral artery embolization was made and an embolus was removed without difficulty from the superficial femoral artery with return of distal pulses in the left leg. Macroscopic and microscopic examination of the removed material suggested that it arose from a myxoma. A pulmonary artery angiogram subsequently showed a large filling defect, approximately 3 cm in diameter, on the septal aspect of the left atrium (fig. 1).

On June 28, 1962, the left atrium was explored using extracorporeal support. The mitral valve was normal. A large myxoma was found loosely attached at several different areas along the atrial septum. The tumor fragmented easily. It and the underlying endocardium were excised; however, the interatrial septum was left intact. Grossly the tumor appeared as a soft, friable, well demarcated, whitish, glistening mass measuring approx-

---

From the Departments of Medicine, Cardiothoracic Surgery and the Mallinckrodt Institute of Radiology of the Washington University School of Medicine, St. Louis, Missouri.

Work was supported in part by Grant HE 11034 of the National Heart Institute, U. S. Public Health Service.
Circulation, Volume XL, November 1969

Bahl et al.

Pulmonary artery angiogram, anteroposterior view (June 21, 1962). Pulmonary venous phase showing opacification of the left atrium. A circular filling defect is seen in the right inferior portion of the left atrium.

At the time of the first operation in our case, the entire tumor along with the underlying septal endocardium was removed, but the septum was left intact. Almost all of the earlier publications on this...
RECURRENT LEFT ATRIAL MYXOMA

subject suggest that this type of simple resection of the tumor is all that is required because recurrence had not been observed for up to 10 years after removal. In addition, in cases where detailed histologic study was undertaken, the tumor was not seen to extend beyond the endothelial layers of the endocardium. Recent reports continue to question the need for wide excision of the septum and point out the rarity of recurrence.

Although recurrence of myxoma is rare, the recurrence in our case and in the case of Gerbode and associates points to an invasive nature of the tumor. We feel, therefore, that excision of the underlying atrial septum or wall is justified in every case. Such a procedure will be more in keeping with the surgical principles of tumor surgery without adding greatly to the technical difficulties of the operation. The defect created in the septum or the atrial wall can be easily closed primarily or with a Dacron patch to restore normal anatomical and physiological function. The chances of disturbing the conduction system are extremely small as the tumor usually arises high on the atrial septum near the fossa ovalis.

Acknowledgment
The authors wish to thank the referring physician, Dr. Oliver Abel, for his cooperation in this study.

References

Figure 2
Photomicrograph of myxoma excised from heart at first operation (1962). The stroma is delicate and waxy in some areas and dense in other areas. Multinucleated cells are numerous. (Hematoxylin and eosin reduced from × 105.)
pulmonary artery angiogram, anteroposterior view (October 10, 1968). Pulmonary venous phase. Left atrium is opacified. A small filling defect is seen again in the right inferior portion of the left atrium.


