

MCQ Answer: Atrial myxoma

MCQ Explanation:

The gross and microscopic examination of the specimen was consistent with a diagnosis of atrial myxoma. There was no evidence of cellular atypia and the lesion did not extend into the atrial wall. The patient's recovery was uneventful and a transthoracic echocardiogram 2 weeks after surgery revealed mildly reduced left ventricular systolic function with an ejection fraction of 45 to 50 percent.

Myxomas are the most common benign cardiac tumors. Myxomas usually affect middle-aged women and occur most frequently in the left atrium. They are usually connected to the fossa ovalis of the atrial septum by a narrow stalk.<sup>1</sup> The specific signs and symptoms of cardiac tumors are determined by their size and location within the heart. Cardiac tumors can cause symptoms via embolization, valvular obstruction, direct invasion into the myocardium, and circulatory obstruction.<sup>2</sup> During cardiac auscultation large tumors may produce a characteristic "plop" in early diastole.

While atrial myxomas may be found incidentally, diagnosis in symptomatic patients is initiated by echocardiography, MRI, or CT. Once a likely diagnosis of myxoma has been made on imaging studies, prompt resection is required due to the risk of embolization. While benign myxomas are the most common tumors that arise in the left atrium, other malignant tumors can mimic myxomas and should be considered in the differential diagnosis. Lipomas are the most frequent primary cardiac tumors secondary to myxomas. Cardiac lipomas are usually asymptomatic but can produce symptoms if they grow to a large size. Lipomas mainly affect obese male patients and the elderly. Rhabdomyoma represents the most common cardiac tumor in children and typically appears as multiple lesions affecting the ventricles rather than the atria. Papillary fibroelastoma represents the most common tumor of the cardiac valves. They are usually small in size (less than 1 cm) and mainly occur in the elderly.<sup>1</sup> The location and description of the mass in our patient was very characteristic for myxoma.

References:

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2. Messina F, Romano P, Crosca S. Atrial myxomas and different clinical presentations. *International Journal of Cardiology*. 2016;203:1136-1137. doi:10.1016/j.ijcard.2015.08.063.

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