

Myxoid tissue fragments in femoral embolectomy material: cardiac myxoma versus myxoid thrombus - A diagnostic dilemma

Femoral embolectomi materyalinde miksoid doku parçaları: kardiyak miksoma ve miksoid trombus arasında bir tanı ikilemi

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A 76-year-old female patient was referred to our Emergency Department because she has suffered a sudden onset of left lower extremity pain, muscle weakness, and left foot cyanosis. Physical examination revealed clear consciousness, blood pressure of 140/90 mmHg, and an irregular pulse rate of 90 per minute. Moreover, a grade 3/6 systolic murmur was heard at the apex of the heart. The left lower extremity had been amputated above the knee previously due to right femoral artery embolus. Peripheral pulse examination revealed normal carotid and upper extremity arterial pulsations while the left and the right femoral arterial pulses were absent. Both lower extremities were cold and her left foot was cyanotic. Therefore, urgent surgery was performed. A myxomatous-like material was removed from both femoral arteries. Macroscopic examination of the embolectomy material showed pinkish-red colored, shapeless gelatinous clot-like tissue fragments. Microscopically myxoid fragments were seen within the fibrinous clot tissue composed of stellate/spindle cells, and

small blood vessels embedded in abundant myxoid matrix. The cells were forming short cords and syncytia; they showed neither atypia nor mitotic activity (Fig. 1). Immunohistochemically, these cells displayed strong positivity with vimentin and smooth muscle actin (SMA) (Fig. 2). They were negative for calretinin. Some of the spindle cells were considered positively stained with CD31, factor VIII and alpha-1-antitrypsin. These findings were interpreted as an embolus, possibly originating from a cardiac myxoma. To search for a possible intracardiac thrombus or tumor, two-dimensional echocardiography was performed. An intracardiac mass originated from the interatrial septum (Fig. 3) and severe mitral valve insufficiency were noted. The patient was operated under cardiopulmonary bypass. The tumoral mass was excised and mechanical mitral valve prosthesis was replaced. The resected mass had a smooth surface and yellow-red color. It was examined totally by serial sections. The microscopic finding was thrombus formation.

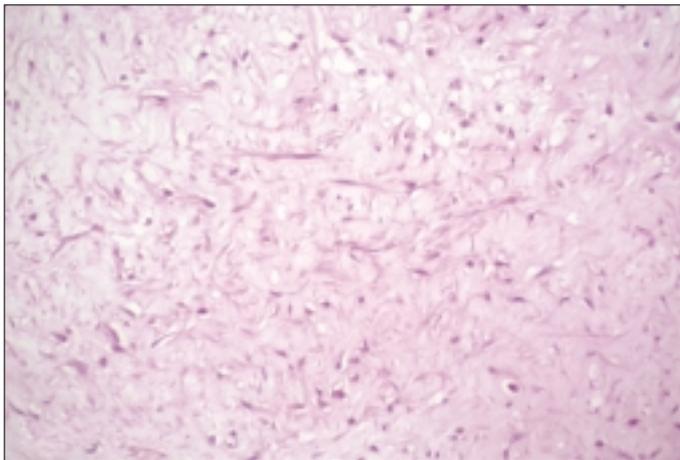


Figure 1. Myxoid fragments within the fibrinous clot tissue, composed of stellate/spindle cells, and small blood vessels embedded in abundant myxoid matrix (H&E X200)

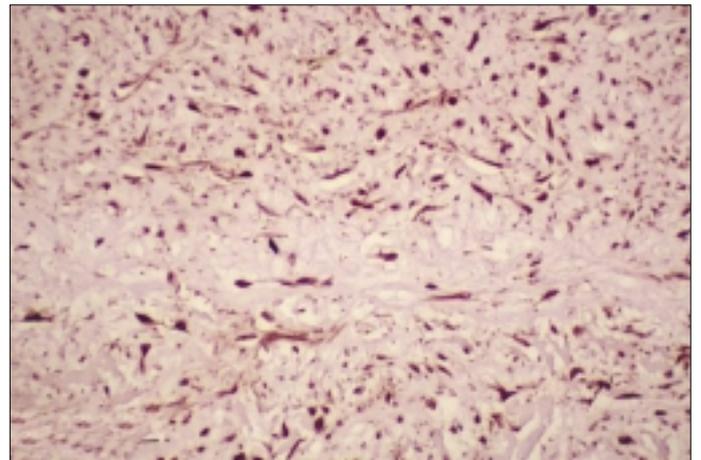


Figure 2. Smooth muscle actin (SMA) positivity in stellate/spindle cells (X 200)

We presented the incidental diagnosis of myxoma from left and right femoral embolectomy material in a 76-year-old female patient with left atrial thrombus mimicking left atrial myxoma concomitance with rheumatic mitral valve insufficiency. These cardiac tumors appear as a soft, gelatinous, mucoid and usually grey-

white mass, often with areas of hemorrhage. As we can see in our presented case despite its benign pathologic nature, catastrophic results can occur (1, 2). Embolic complications in cardiac myxoma are common (3- 4). We believe that if the embolectomy material from the peripheral artery is macroscopically myxomatous, gelatinous and pinkish-red, the surgeons should keep in mind the embolic complication of cardiac myxoma and detailed examination by echocardiography should be done in these particular cases.



Figure 3. Two-dimensional echocardiographic examination exhibits an intracardiac spherical mass originating from interatrial septum

References

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