Case report

Infected atrial myxoma : case report and review of the literature

Abstract:

Cardiac myxomas are the most common primary intracardiac tumors in adults, but infected myxomas represent a rare and challenging complication. We report the case of a 50-year-old patient with no prior medical history, admitted for febrile ischemic stroke, which revealed an infected left atrial myxoma. This case underscores the diagnostic and therapeutic challenges of infected cardiac myxomas, which can lead to severe complications such as systemic embolism. Given the rarity and nonspecific clinical presentation of this condition, timely diagnosis and management are crucial. While rapid surgical resection is often advocated due to the high embolic risk, careful assessment of the benefit-risk balance remains essential, particularly in patients with neurological compromise. Further studies are warranted to establish a consensus on the optimal management of infected cardiac myxomas.

Introduction:

Cardiac myxomas are the most common primary intracardiac tumors in adults. Myxoma's infection is a rare complication, which raises a diagnostic and therapeutic dilemma.
The infected cardiac myxoma is a very rare condition with only sporadic cases reported in the literature.

Case presentation :

Observation:

We report the case of a 50-year-old patient with no previous medical history who was not known to be immunocompromised. The patient was admitted for febrile hemiplegia. A CT scan showed multiple ischemic strokes in both hemispheres. Further investigations, including trans-thoracic echocardiography, revealed a large obstructive left atrial tumor adherent to the interatrial septum, measuring 61 x 21 mm, with prolapse across the mitral valve plane [5-8]. The inferior extremity of this mass had an additional mobile structure, which made us suggest the presence of vegetations on the mass.

Laboratory data showed a white blood cell count of 20 680/L, and a serum C-reactive protein concentration of 320 mg/dL. Hemocultures were positive for Streptococcus. The patient's condition was complicated by the development of acute ischemia of the lower limb despite appropriate antibiotic therapy based on the blood cultures. The patient was managed with urgent surgical resection due to the obstructive critreria , and antibiotics were adopted as described in the guidelines for infective endocarditis and used intravenous antibiotics for 4 weeks after surgery. The patient’s postoperative course was uneventful. Pathology revealed myxomatous tissue and prominent plasma cell infiltrates, confirming a diagnosis of infected cardiac myxoma.

Figure 1 : Transthoracic echocardiography showing the left atrial myxoma.

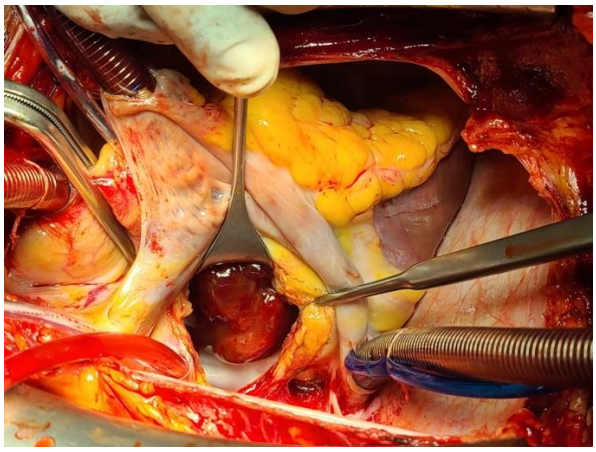

Fig 2 : operative view revealing the tumor with an irregular surface and a stalk attached caudal to the fossa ovalis.

Discussion :

Myxomas are the most common primary cardiac tumors, occurring in approximately 0.0017% to 0.33% of autopsy series. The majority arise in the atria (75% in the left atrium and 20% in the right atrium) (1).

There is no widely used definition of infected cardiac myxoma. This is complicated by the fact that myxomas, even without microbial involvement, may cause signs and symptoms suggestive of infection (2).

In 1998, Revankar & Clark (1) defined infected cardiac myxoma at three levels based on clinical and pathological findings:

Definite infected cardiac myxoma

1. Documented myxoma by pathology and
2. a. Microorganisms seen on pathology or
   b. Positive blood cultures and inflammation on pathology.

Probable infected cardiac myxoma

1. Documented myxoma by pathology and
2. Positive blood cultures or inflammation on pathology.

Possible infected cardiac myxoma

1. Characteristic appearance by transthoracic or transesophageal echocardiography and
2. Positive blood cultures.

Because these conditions were met in our case, a diagnosis of infected cardiac myxoma was confirmed. Fever was the most common symptom, and constitutional symptoms were more frequent than obstructive or neurological symptoms in Shi-Min Yuan's study (3).

In the SHI-MIN Yuan study, there were 12 patients in whom complications developed. Of these, embolic events occurred in 10 (with 8 involving multiple sites or organs), sepsis in 4, disseminated intravascular coagulation in 3, and lung abscess in 1. In Revankar & Clark's series, 18 patients developed embolic events, and only one of them involved multiple sites.

Also, in the SHI-MIN Yuan study, of the 39 patients included, 17 tested positive for streptococcus, while 12 of them tested positive for staphylococcus.

Some reports have stated that the risk of emboli with infected myxomas is higher than with uninfected myxomas (2). In fact, the incidence of embolization was reported to be two to three times higher in patients with infected than in those with non-infected cardiac myxomas, due to the fragile fibrin thrombus on the tumor surface, similar to infective endocarditis (4).

References:

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