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Letter to the Editor

Author's Reply to Systemic Inflammation in the Setting of Cardiac Myxomas: an Overview of Clinical and Practical Considerations

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Dear Editor,

We sincerely appreciate the letter by Yalta et al.[1] for our recently published report regarding a mitral valve myxoma in an adolescent male, who presented with signs and symptoms of substantial systemic inflammation.[2] They also provided informative comments on the general implications of systemic inflammation in the setting of cardiac myxoma.

The reported patient presented with unusual constitutional symptoms, including Janeway lesions and Osler's nodes along with high fever and high c-reactive protein level. The most likely differential diagnosis was infective endocarditis. Infective endocarditis may be associated with cardiac myxoma and can be an initial presentation of the tumor.[3] However, there were no discrete evidence of endocarditis in this patient; no predisposing heart condition or immunocompromised status, no history of invasive procedure, negative blood culture, and no evidence of typical endocardial involvement by echocardiography. In addition, the clinical manifestations suggesting infective endocarditis disappeared immediately after tumor resection. The inflammatory markers also dropped significantly after the first tumor excision. During 1 year of follow up after the second operation, there has been no clinical manifestation suggesting any chronic inflammatory disease. Therefore, we think that the unusual constitutional symptoms were inherent features of cardiac myxoma itself in this patient.

Regarding atypical tumor location and unusually early recurrence after operation in a young patient, it is reasonable to suspect a familial cardiac myxoma associated with some genetic background or syndromic condition such as Carney's complex.[4] However, there was no family history of cardiac myxoma and any extracardiac findings (endocrinologic abnormalities or cutaneous tumors) suggesting Carney's complex in this patient. At the time of diagnosis and during follow up, there has been no clinical signs of distant tumor seeding. Recently, we are doing a next-generation sequencing analysis to seek any genetic basis associated with cardiac myxoma, but the result is still pending at this moment.

Data Sharing Statement

The data generated in this study is available from the corresponding authors upon reasonable request.

Author Contributions

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Treatment of cardiac myxoma is an urgent and complete surgical resection in order to prevent further complications and tumor recurrence.[5)6)] However, surgery for myxoma involving heart valve is complicated because valve repair or replacement are sometimes necessary to remove tumor tissue completely. Yuan et al.[5)] reported that about a half of patients needed additional procedures to preserve mitral valve function, with 21.6% of valve replacement. Local recurrence of myxoma at the same site in our patient might be associated with "minimal residual tumor cells" after surgical resection of the myxoma. Nevertheless, such an early recurrence and a rapid growth are very unusual manifestations.

Cardiac myxoma should be suspected in otherwise healthy children presenting with the constitutional symptoms as mentioned above and acute embolic events. Evaluation of possible coinfection, familial or genetic background, and chronic inflammatory disease associated with cardiac myxoma should be also considered. Meticulous follow up after surgery is mandatory to seek local recurrence or distant tumor seeding.[7)]

REFERENCES

1. Yalta K, Ozturk C, Yalta T, Yetkin E. Systemic inflammation in the setting of cardiac myxomas: an overview of clinical and practical considerations. *Korean Circ J* 2021;51:784-6.
CROSSREF
2. Eun MJ, Shin JA, Choi YU, et al. Unusually early recurrence of mitral valve myxoma in a child. *Korean Circ J* 2021;51:554-7.
PUBMED | CROSSREF
3. Fitzgerald GP, Coughlan JJ, Satti Z, Arnous S. Atrial myxoma presenting as infective endocarditis. *BMJ Case Rep* 2018;2018:bcr2017223656.
PUBMED | CROSSREF
4. Mahilmaran A, Seshadri M, Nayar PG, Sudarsana G, Abraham KA. Familial cardiac myxoma: Carney's complex. *Tex Heart Inst J* 2003;30:80-2.
PUBMED
5. Yuan SM. Mitral valve myxoma: clinical features, current diagnostic approaches, and surgical management. *Cardiol J* 2012;19:105-9.
PUBMED | CROSSREF
6. Lee EJ, Moon S, Lee JY, Kang JK, Chang YH. Concomitant percutaneous aortic embolectomy and excision of left atrial myxoma in a child. *Pediatr Int* 2015;57:172-4.
PUBMED | CROSSREF
7. Aguilar C, Carbajal T, Beltran BE, Segura P, Muhammad S, Choque-Velasquez J. Cerebral embolization associated with parenchymal seeding of the left atrial myxoma: potential role of interleukin-6 and matrix metalloproteinases. *Neuropathology* 2021;41:49-57.
PUBMED | CROSSREF