

## Cardiac myxomas and their surgical results

### Kardiyak miksomalar ve cerrahi sonuçları

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Dear editor,

We read with great interest the article of Arıcı et al.<sup>[1]</sup> published in your Journal's third issue of the year 2015. We congratulate them for such an important contribution to our surgical knowledge. However, we believe a few points need to be further mentioned.

1. Myxomas are the most common benign intracavitary neoplasms. The structure of the tumor, localization in the heart, and diameter of the mass are main determinants for the symptoms and outcomes. Myxomas usually present with symptoms of intracardiac obstruction, hemodynamic alteration, cerebral or peripheral embolism, syncope or sudden death (due to complete obstruction of the mitral valve or coronary artery embolism), or constitutional symptoms. In the literature, embolization can be the initial symptom of cardiac myxomas. Embolization was typically associated with papillary type of myxomas characterized by an irregular and gelatinous exterior with a friable, soft consistency.<sup>[2,3]</sup> It was also discussed that "the embolization is more frequent with gelatinous, soft, lobulated and solid tumors"; nevertheless the solid type of myxomas is characterized by smooth regular borders and are stiff with tough consistency which make embolization is uncommon with this kind of myxomas.<sup>[2]</sup>

2. Although almost all patients had chest pain and exertional dyspnea in the study, it is not clear which patients underwent coronary angiography before surgery. In general, unless there is an emergency, coronary angiography should be carried out in elderly patients who are over 40 years old or in any patients

who have chest pain regardless of their age and the presence or absence of cardiac risk factors to rule out the atherosclerotic coronary artery disease and coronary embolization.

3. Echocardiography is currently the major diagnostic modality available for imaging cardiac myxomas. It easily defines the location, shape, size, and relations of mass with intracardiac components. Moreover, transesophageal echocardiography (TEE) is superior to transthoracic echocardiography to view the posterior cardiac structures and the best surgical approach can be tailored thanks to its excellent spatial resolution. Although magnetic resonance imaging and computed tomography are equally useful for diagnosis, they are often more costly and time-consuming.<sup>[2]</sup> In this study, these modalities were utilized in 20 patients (42%). We think it is a very high rate for Turkey in terms of cost. In addition, intraoperative TEE was used rarely in the study and we believe it is imperative to use intraoperative TEE in the current era to delineate the complete resection of tumor and detect any residual interatrial shunt and cardiac and valvular functions at the end of operation.

4. Perioperative mortality rate is similar to the literature data in two patients (4%). Both patients had underwent coronary artery bypass surgery simultaneously and they were probably over 50 years old. Early mortality could be related to emergency surgery, the preoperative extracardiac conditions of the patients, and to the age of the patient at the time of surgery.<sup>[3,4]</sup> We believe that in patients who are elderly or have high or additional risk factors, this should be emphasized to identify the common nominators on the mortality and morbidity.

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## Author's Reply

Dear editor,

We thank to authors for their insightful comments and the opportunity to clarify a number of points from our original article titled 'Cardiac myxomas and their surgical results' which was published in the recent issue of your journal.<sup>[1]</sup>

As mentioned by the authors, it was reported that embolizations might occur more often in gelatinous, soft, and lobulated tumors than in solid and encapsulated tumors.<sup>[2]</sup> Indeed we agree that embolizations caused by solid tumors are not common.

In our patient population, we used coronary angiography for patients more than 40 years old routinely or in patients of any age who had chest pain following the diagnosis of cardiac myxomas.

Transthoracic echocardiography is the most important diagnostic tool and also useful for follow-up.<sup>[3]</sup> However, there is no bias about the benefits of transesophageal echocardiography. We used CT and MRI in 20 of 47 patients between 1990 and 2012. In a period of 22 years, 15 MRI and five CTI are not more costly and time-consuming. It should be kept in mind that as cardiac myxomas are not seen frequently, additional imaging techniques can be used without any hesitation.

Furthermore, complication rates of myxoma surgery is acceptable and perioperative mortality rate is low. Patient's overall condition, age, concomitant cardiac or systemic diseases can be predictors for perioperative mortality and morbidity, as in our two patients.

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