

# FIVE YEAR FOLLOW UP OF A PAPILLARY FIBROELASTOMA CASE LOCATED ON MITRAL VALVE IN A YOUNG PATIENT

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*Papillary fibroelastomas (PFE) are primary cardiac tumors of valvular tissues, located on the valves, mostly the aortic valve. They are usually seen in elderly patients. In this study; a PFE case located on the mitral valve in a 21 year old male who was followed up for five years after the operation, is presented. At the end of the follow up period, there was no recurrence and a minimal increase was observed in the mitral valve insufficiency.*

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Five years ago, a 21 year old male was hospitalized with a diagnosis of left hemiplegia that was partially recovered at the end of the first week. There were no history of endocarditis or prolonged fever. On physical examination, a regular heart rate (95 / per minute) and blood pressure (115/65 mmHg) were recorded. Body temperature was also normal. At the apex of the heart there was a systolic murmur (1/6). ECG, chest radiography, complete blood count and biochemical evaluations revealed no pathology. No signs or symptoms endocarditis were found on the extremities. On computerised brain tomography there was a thrombotic ischemic area on right hemisphere. TEE demonstrated a large mobile mass (1.5x1.5 cm) on the anterior leaflet of mitral valve. Color Doppler examination showed mild mitral insufficiency and hyperdynamic left ventricular function. With all these findings, we decided to apply a surgical intervention; a cardiopulmonary by pass operation by using bicaval standart cannulation technique. The tumor was seen on the anterior leaflet and was resected with a 1-2 mm of healthy tissue. The defect of the leaflet was closed with a polypropylene suture in a primary suture technique. After that; kay annuloplasty was applied for the mitral insufficiency.

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The mitral valve was examined with TEE after the cardiopulmonary by-pass. A mild mitral valve regurgitation was found. The postoperative period was normal and the patient was discharged in normal time limit. The patient was called for periodic examinations once a year for five years. Through these examinations, the physical condition, complete blood analysis, electrocardiography and echocardiographies were evaluated. During these years; we recorded a minimal increase in the mild mitral insufficiency degree. But this increase caused no complaints and did not disturb the life quality of the patient. At the end of the fifth year blood analysis were completely normal. On physical examination, there was a mild diastolic murmur at the mitral area. On echocardiography, there was no mass on the anterior leaflet and we found that there was a minimal progression in the mild mitral insufficiency. But the ventricular functions, wall dimensions and the ejection fraction were found to be normal. Through the follow up period there was no recurrence in PFE.

## DISCUSSION

Myxomas, lipomas and papillary fibroelastomas [1] are benign primary cardiac tumors that are rarely seen. Less than 10 % of all primary cardiac tumors are PFE's [2]. Papillary fibroelastomas usually take origin from valvular tissues and they are localised on the surface of the valves. These tumors show finger like projections radiating from a central stalk [1]. Usually a single valve is involved and mostly it happens to be the aortic valve. However, there are some cases reported to be involving the other valves [3]. The lesions consist of a slender or broad fibrocollagenous stalk from which numerous papillary villous fronds radiate microscopically [4].

These tumors are usually asymptomatic and are diagnosed at autopsy [2]. They mostly cause strokes or transient ischemic attacks due to cerebral embolism [2]. Angina, sudden death and myocardial infarctions are other clinical manifestations [2,6]. The tumors range from

5x3 mm to 10x 40 mm in size. In determining the location, TEE is better than TTE and may be used in intraoperative excision [7]. In echocardiography, a mobile and pedunculated lesion with a homogeneous echodensity is characteristic. Some authors suggest that a small, slowly growing PFE serves as a nidus for an extensive thrombus developing rapidly, so that the lesion can be seen echocardiographically. When the reports of many cases are taken into account, it can be easily seen that if there is an embolic event suggesting the presence of a PFE, surgical intervention ( a simple excision with or without valve repair ) will be necessary [2]. Recurrence of a PFE has not yet been reported [2,8]. For small asymptomatic lesions diagnosed on echocardiography, warfarin or antiplatelet treatment is useful to prevent thromboembolic events [5]. But the treatment of asymptomatic lesions differ from case to case. Many reports suggest that patients with mitral valve tumors larger than 10 mm diameter have a higher risk for systemic emboli . But a case of embolisation due to a PFE with 3 mm diameter has also been reported [2]. Thus the surgical intervention decision must be taken on careful evaluation. Because of the probable complications such as emboli, myocardial ischemia and sudden death, surgical excision is suggested for larger lesions or for lesions close to the coronary ostia [5].

In this study a rare case of PFE located on mitral valve in a very young male patient (21 years old) is presented. We applied both the tumor excision and mitral valve reconstruction in our case. At the end of the 5 years follow up period, there was no recurrence. Due to the surgical intervention, some valvular insufficiency can be seen. But this minimal insufficiency risk can be afforded to save the patient's life. Meanwhile the periodic examinations must be carried out very carefully. We have seen that, the surgical approach is necessary for the treatment of symptomatic PFE cases. In conclusion, in our case, tumor excision and valvular reconstruction operation was found to be successful. At the end of the 5 years follow up period, there was no recurrence.

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