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## A RARE FINDING ON CHEST X-RAY: ISOLATED PAPILLARY MUSCLE CALCIFICATION

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Case Report

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### Abstract

Isolated papillary muscle calcification is a rare clinical finding seen in radiological imaging such as chest x-ray, chest computed tomography and echocardiography. In herein, we aimed to present a case of isolated papillary muscle calcification in a 60-year-old male to remind for the physicians.

**Key words:** Chest x-ray, Papillary muscle calcification.

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### Özet

İzole papiller kas kalsifikasyonu akciğer grafisi, toraks tomografisi ve ekokardiyografi gibi radyolojik görüntülemelerde görülen nadir klinik bir bulgudur. Biz burada 60 yaş erkek hastadaki izole papiller kas kalsifikasyonunu uzmanlara hatırlatmak amacıyla sunduk.

**Anahtar kelimeler:** Akciğer grafisi, Papiller kas kalsifikasyonu.

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## **1. Introduction**

Papillary muscle calcification is a rare clinical finding with an unknown frequency and usually detected by incidentally. Coronary artery disease, mitral valve disease, dilated cardiomyopathy, advanced age, increased level of serum calcium level, and chronic renal failure may cause calcification in the papillary muscle (Kim et al., 2011). Symptoms may not be seen especially if elderly patients do not have a large calcification area and this finding can be detected randomly during imaging such as chest x-ray or computed tomography. In recent years, any reports of this finding have been found in the literature. In herein, we reported a rare case of isolated papillary muscle calcification in a 60-year-old male to remind for the physicians.

## **2. Case**

A 60-year-old male patient admitted to the hospital with chronic cough for three months. The patient had hypertension disease for 10 years and he had no chronic heart disease including coronary artery disease, valvular impairment, chronic renal failure and any disorder causing to hypercalcemia. His physical examination was normal and initial electrocardiogram revealed any pathology. On the posteroanterior chest radiograph of the patient, calcification with irregular boundary, superposed with the heart, was seen in the lower left zone (Figure 1).



**Figure 1.** Posteroanterior chest radiograph showed the calcification in the lower left zone

Chest tomography of the patient showed calcification in the left ventricle (Figure 2). Echocardiography performed on the patient showed papillary muscle calcification extending into the left ventricle (Figure 3). His laboratory examination including lipid profile, renal-liver function tests and electrolytes were normal. The patient was not offered additional treatment other than his own blood pressure medication and is under our clinical follow-up.



**Figure 2.** Chest computed tomography showed the calcification in the left ventricle



**Figure 3.** Echocardiography of the patient showed calcification in the left ventricle

### 3. Discussion

Atherosclerosis is common in elderly patients over the age of 65 years, and atherosclerotic plaques usually appear in the epicardial arteries, mitral annulus, aortic valve, and left ventricular papillary muscle and papillary muscle calcification was first described in 1974 (Schwender, 2001; Garfein et al., 1974; Brett et al., 2013). This degenerative change that increases with age can be encountered radiologically in asymptomatic patients. In the literature, it is possible to see cases with papillary calcification after myocardial infarction and accompanied by senility. In our patient, there was no evidence of coronary artery disease and the patient was not over 65 years of age. Any specific drug therapy is required for the patient after diagnosis of this finding. When physicians recognize this sign in radiological imaging such as chest x-ray, computed tomography and echocardiography they should keep in mind isolated papillary muscle calcification.

### 4. Conclusion

In conclusion, papillary muscle calcification is a rare clinical finding and physicians should pay attention for these patients.

### Conflicts of interest

The authors declare that there are no potential conflicts of interest relevant to this article.

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