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# Accessory mitral valve tissue

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## Abstract

Accessory mitral valve tissue is a rare congenital malformation. It can be found isolated or in combination with other cardiac anomalies and is usually detected in early childhood. We describe the case of a 74-year-old asymptomatic patient who was referred to our clinic for the evaluation of a heart murmur.

*Key words: accessory mitral valve tissue; subaortic obstruction*

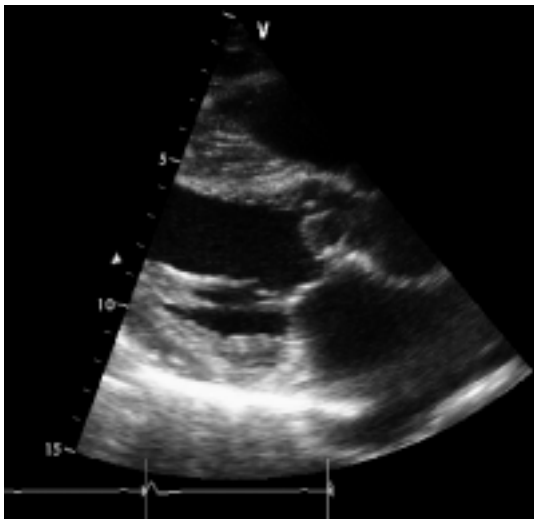


**Figure 1**
Parasternal long axis view showing the accessory mitral valve tissue.

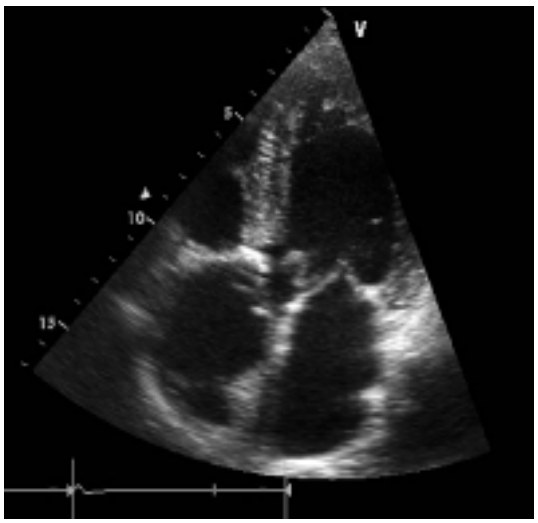


**Figure 2**
Five chamber apical view showing the accessory mitral valve tissue (?*).

## Case report

A 74-year-old male patient was referred to our clinic for the evaluation of a grade $^{3}/_{6}$ systolic heart murmur. The patient was asymptomatic and in good physical condition. The transthoracic echocardiography showed a mobile leaflet-like structure moving in systole into the left ventricular outflow tract (fig. 1–3). A relevant subaortic obstruction could not be demonstrated (maximum gradient 17 mm Hg). A mild aortic regurgitation was detected on colour Doppler examination.

Transoesophageal echocardiography revealed an accessory mitral valve tissue adhering to the anterior mitral valve leaflet and ballooning into the left ventricular outflow tract during systole. Besides a mild dilatation of the sinus of Valsalva (4.6 cm) no other cardiac anomalies were to be found.

In the absence of symptoms and relevant obstruction of the left ventricular outflow tract, the patient is being followed up without surgical intervention.

## Discussion

Accessory mitral valve tissue is a rare congenital malformation. It can be found isolated (<30%) or in association with other anomalies of the heart or great vessels (>70%) and is generally detected in early childhood. The incidence of this anomaly is unknown. In adult echocardiography, accessory mitral valve tissue has been reported in 1 of 26 000 performed examinations [1].

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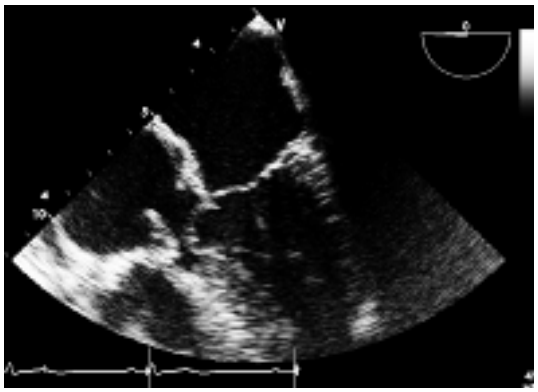

**Figure 3**
Mid-oesophageal view. Accessory mitral valve tissue adhering to the anterior valve leaflet.

The embryology of the malformation is poorly understood but seems to be the sequel of an incomplete separation of the mitral valve from the endocardial cushion during cardiac development. The accessory tissue is usually attached to the anterior mitral valve leaflet, the chordae of the mitral valve or to an accessory papillary muscle.

The patients' signs and symptoms vary according to its location and co-existing malformations. In isolated forms the patient usually presents an asymptomatic heart murmur. Left ventricular outflow tract obstruction generally causes exercise intolerance, chest pain or syncope on exertion in the first decade of life [2].

Obstruction of the left ventricular outflow tract can be the result of the mass effect of the accessory tissue itself or may develop, as in other conditions, due to a continued deposition of fibrous tissues within the left ventricular outflow tract as a sequel of turbulent flow [3].

Other diagnosis of left ventricular mass, such as vegetations or tumours may produce similar echocardiographic findings and have to be distinguished.

Surgical correction is mandatory while repairing a related malformation or if significant subaortic obstruction is present. The diagnosis of accessory valve tissue before and during operation may be difficult and heart surgeons should know the anatomical features of this anomaly to separate it exactly from normal tissue [4].

The incidental finding of an accessory mitral valve tissue without obstruction of the left ventricular outflow tract is a very rare finding in adults and only a few cases have been reported previously. We advise regular clinical and echocardiographic evaluations in this situation to identify any progression of left ventricular outflow tract obstruction.

## References


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