A large blood cyst of the mitral valve: late presentation in an 80-year-old female

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The ‘blood cyst’ or the ‘blood-filled cyst’ was first reported by Elsässer in 1844. It is relatively common in newborns under 6 months of age, but disappears spontaneously in most cases during infancy, a rare finding in young adults. We present a case of a blood cyst found in an 80-year-old woman with concomitant coronary artery disease.

The patient was admitted with the diagnosis of a solid tumour (20 × 25 mm) of the left ventricle, identified by magnetic resonance (Panels A and B), where homogenous contrast opacification of the tumour was noted. The diagnosis of fibroelastoma or myxoma was proposed.

The transoesophageal examination (mid-oesophageal four-chamber view) revealed a mobile, hyperechogenic lesion (arrow) on the anterior leaflet of the mitral valve (Panels C and D; see Supplementary data online, Movie 1). It originated from antero-lateral papillary muscle and extended in the direction of the mitral annulus (Panels E and F; see Supplementary data online, Movie 2 and 3). The structure was moving together with anterior leaflet causing non-significant outflow tract obstruction (Panel G; see Supplementary data online, Movie 4).

At surgery, a membrane extending from the primary chordae of the antero-lateral papillary muscle along the anterior leaflet was found (Panel H, arrows). The membrane formed a kind of pocket, which, in vivo, was filled with the blood. Histological examination revealed a typical valve tissue with fibrotic areas and pocket-like space covered with endothelium. No sign of inflammation or neoplastic disease was found.

Supplementary data are available at European Heart Journal – Cardiovascular Imaging online.