Primary cardiac sarcoma: a rare disease with rapid progression

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A 70-year-old male patient was admitted to our hospital with progressive dyspnoea. Besides an intermediate risk for coronary artery disease, the patient showed Troponin T (TnT) levels of 45 pg/mL. According to guidelines, we performed a coronary angiography.

Panel 1A shows the coronary angiogram of the left coronary artery with mild arteriosclerosis (arrow and arrowhead) without indication for coronary intervention. Surprisingly, the following echo-cardiography identified a 6 × 5 cm structure in front of the right ventricle. With a patient history of melanoma the suspect mass was biopat under CT guidance for histological workup and a doxorubicin therapy was initialized. The patient, now free of symptoms, was dismissed.

Two weeks prior to the 8 weeks follow-up appointment for adapting chemotherapy to histological results, the patient readmitted to our cath-lab with reoccurring TnT elevation (115 pg/mL). The LAD was now completely displaced (Panel 1B, arrowheads).

A MRI scan (Figure 2A) showed an isointense tumour of 10 × 15 cm (arrowheads) with bright spots (arrows). It did not take up contrast agent (Panel 2B) and was compromising the anterior myocardial wall (Panel 2B, arrowhead, LGE). MR angiography revealed compression of the right and left ventricle (Panel 2C and D) as well as left atrium (LA) and especially the main pulmonary artery (arrowhead).

The histological results showed a low-differentiated (G3 after FNCLCC) sarcoma with immuno-histochemical hints of cardiomyogenic origin. Based on the rapid growth, the infiltrating character and the malignant grading, the tumour was classified inoperable. The patient was dismissed to palliative care.

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