Unusual case of Large Right Atrial mass

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Abstract

A 57-year female presented to emergency with features of right heart failure. On evaluation, she was found to have a large mass completely occupying right atrium and protruding into right ventricle through tricuspid valve. Here we present the 3D reconstruction images and intra-operative images of the RA mass.

Unusual case of Large Right Atrial mass

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ABSTRACT

A 57-year female presented to emergency with features of right heart failure. On evaluation, she was found to have a large mass completely occupying right atrium and protruding into right ventricle through tricuspid valve. Here we present the 3D reconstruction images and intra-operative images of the RA mass.

Keywords: right atrial mass; myxoma; benign tumor

Introduction

Myxoma is the most common benign tumor of heart. Usually myxoma is soft, lobulated, friable mass. Its seen commonly in left atrium, right atrium and less frequently in ventricles. Due to its friable nature, it can easily embolize distally. It is usually diagnosed when person develops heart failure symptoms or embolic phenomenon. Treatment includes complete excision with prevention of distal embolization.

Case details

A female aged 57 years presented to emergency with shortness of breath and generalized body swelling for 2 months. On evaluation, she was found to have large mass occupying whole of right atrium and protruding into right ventricle through tricuspid valve.

She underwent Computed tomography (CT) angiography for evaluation of coronaries and to rule out distal embolization (Figure 1).

Patient was planned for emergency mass excision. Once intubated and on mechanical ventilation with arterial and central venous lines secured, she was placed in supine position, painted and draped.

Midline sternotomy was performed and pericardial opened vertically (Figure 2).

Large right atrial could be seen. Since mass was not involving Superior and Inferior vena cava (SVC and IVC), Central cannulation was performed and cardiopulmonary bypass was establised. Right atrium was opened after cross clamping aorta and pulmonary artery and arresting the heart in diastole with cold blood cardioplegia.

Just as the right atrium was incised, mass was seen completely occupying it and bulging out (Figure 3 and 4).

Mass was gently delivered from right ventricle into right atrium through tricuspid valve and lifted off its attachment from lateral wall of right atrium. Right ventricle was thorougly checked for embolic mass and thorougly washed with cold saline. Tricuspid patency was confirmed with saline test and trans-esophageal echocardiography.

Right atrium and closed and patient came off bypass and routine decannulation and closure followed. Figure 5 shows measurements of the mass.

Histopathological analysis revealed the mass to be myxoma with hemorrhagic areas within.

Discussion

Myxoma can present as a solid, globular mass in atrium. Routine technique of its extraction should be followed with care taken to prevent embolisation.

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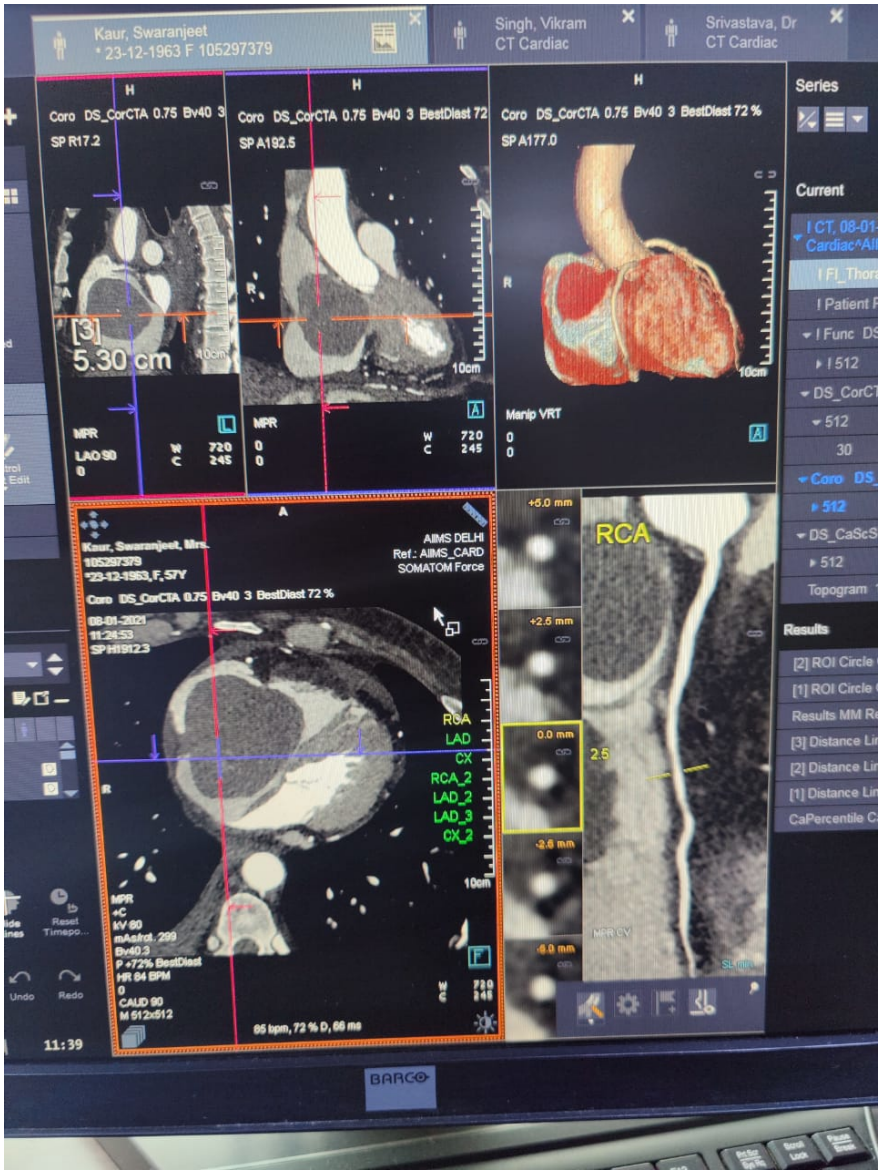

Figure 1: 3D reconstruction image of right atrial mass

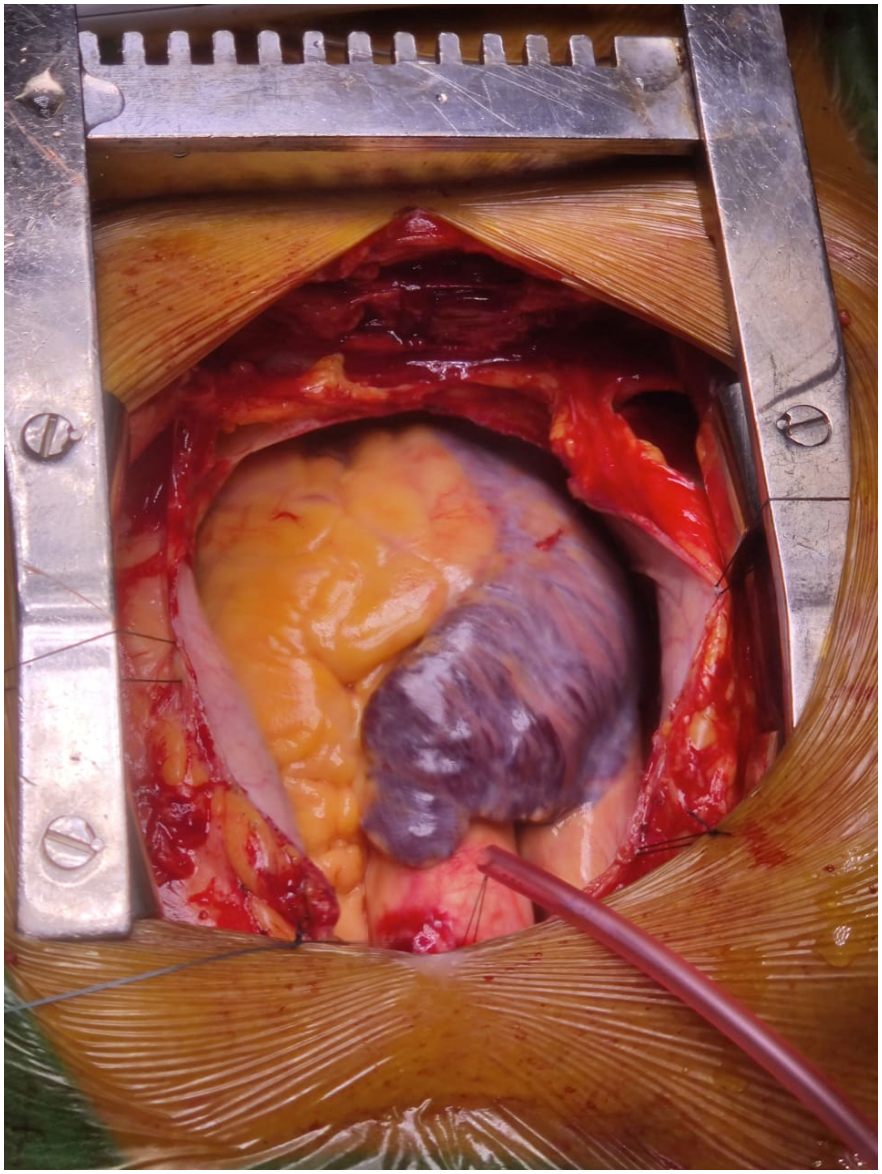

Figure 2: External Appearance of Heart

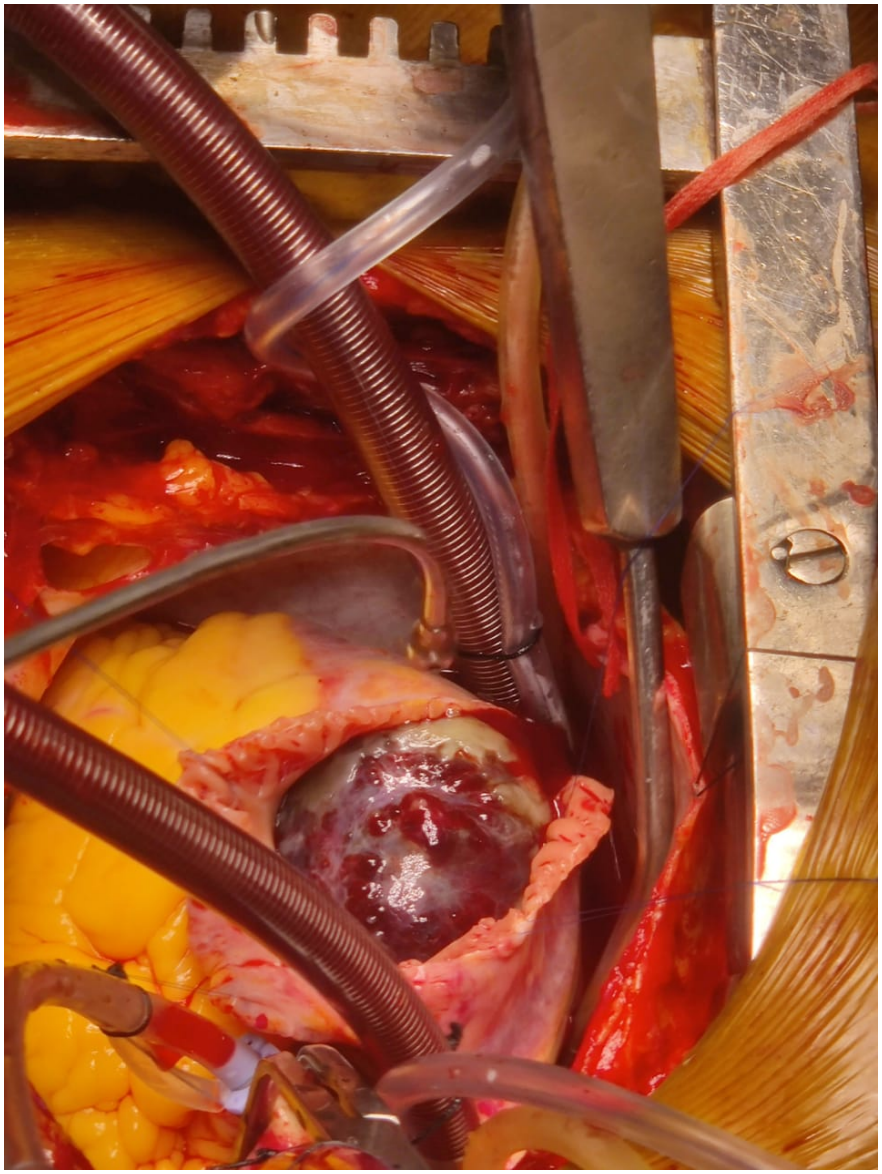

Figure 3 : Visualisation of mass on opening right atrium

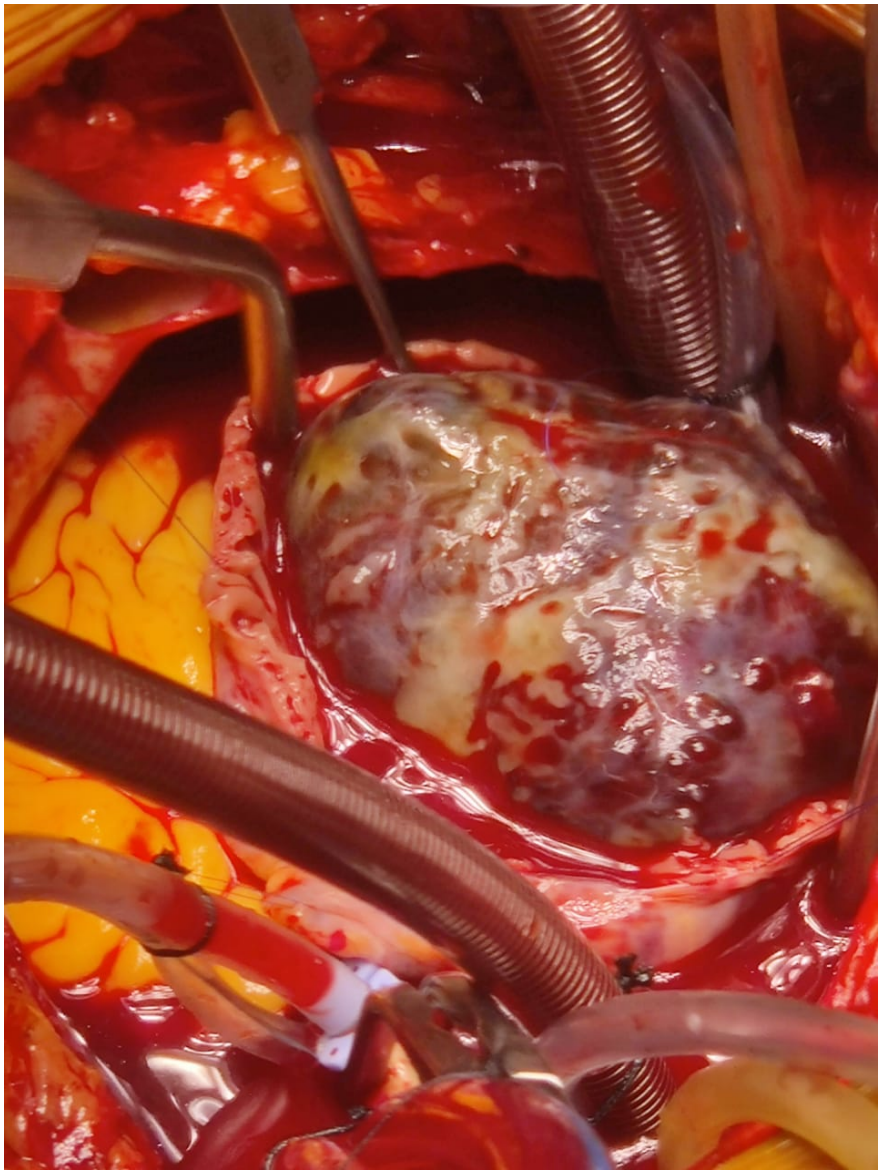

Figure 4 : Mass completely occupying right atrium

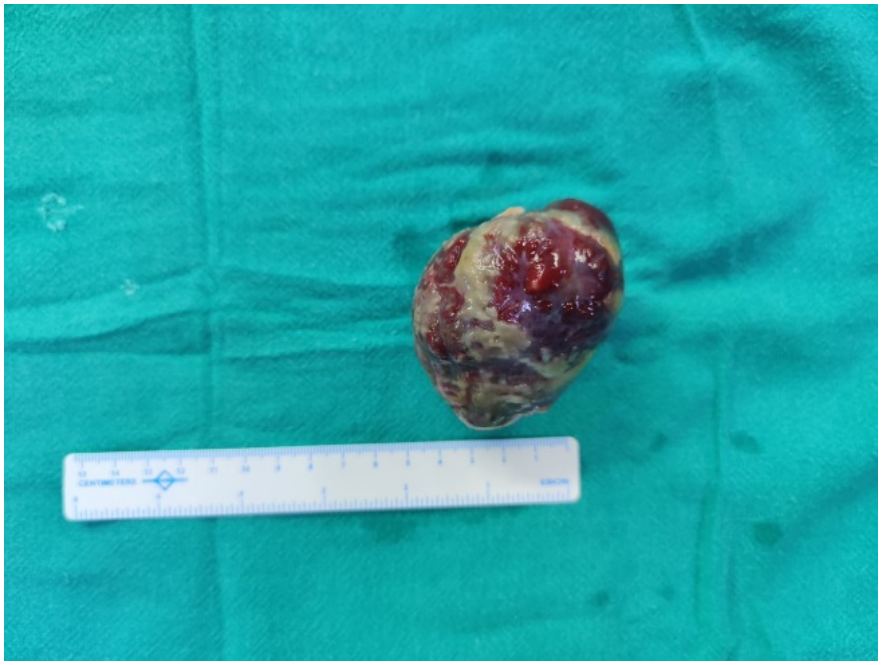

Figure 5 : Measurements