Right Atrial Myxoma

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A 54 yr old man, non-smoker, non-alcoholic, and non-diabetic, non-hypertensive, non-obese, with moderate daily activity and no significant past medical history, presented with chief complaints of dyspnoea NYHA Class III, which was associated with diaphoresis and restlessness. On examination, a long systolic murmur of grade III-IV, increasing on inspiration, was audible in the tricuspid area. The murmur did not have any postural relation. An abnormal thud-like sound was audible in left parasternal region. There was no evidence of any pleuro-pericardial rub. Transthoracic echocardiography showed a large (7×4 cm), mobile mass arising in the right atrium superiorly, prolapsing through tricuspid valve, into the right ventricle, resulting in moderate tricuspid regurgitation. 2D echo (Figure 1) and cardiac MRI (Figure 2) of the heart showed a isoointense to mildly hypointense mass from the right atrium prolapsing through the tricuspid valves into the right ventricle on T2 weighted images. There was absence of any enhancement of the mass after administration of IV gadolinium. The patient underwent excision of the myxoma. Histopathological examination showed a tumour with extensive myxomatous matrix with dispersed cellular components. The tumour cells were arranged in single or multiple layers surrounding vascular channels, which were lined by endothelium. The tumour cells had spindle-shaped nuclei with occasionally vacuolated eosinophilic cytoplasm. There was no increase in mitosis. In addition there was background of lympho-plasmacytic infiltrate (Figure 3). The patient remained asymptomatic for the period of one and a half years of follow up post-operatively.

Fig. 1: Four chamber view of the patient’s transthoracic echocardiography showing a large echo-dense mass arising from right atrium superiorly and prolapsing through tricuspid valve into right ventricle

Fig. 2: MRI of the heart showing isointense to mildly hypointense mass from the right atrium prolapsing through the tricuspid valves into the right ventricle on T2 weighted images as marked by arrows

Fig. 3: Histologic appearance of the mass excised. Multiple section examined showed tumor with extensive myxomatous matrix with dispersed cellular component. The tumor cells are arranged in the single or multiple layers surrounding vascular channels lined by endothelium. Tumor cells have spindle-shaped nuclei with occasional vacuolated eosinophilic cytoplasm

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Received: 07.04.2014; Accepted: 02.05.2014