Disappearing left atrial mass with drainage of pericardial effusion

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A 25-year-old female with history of intravenous drug abuse was admitted with tricuspid valve infective endocarditis. Echocardiogram demonstrated a large vegetative mass (arrow) in the right atrium (RA) (Panels A and B). She underwent excision of the mass, pericardial reconstruction of the tricuspid valve with Kay annuloplasty, and was discharged. A month later, she presented acutely in shock with severe metabolic acidosis and respiratory distress. Physical examination revealed muffled heart sounds; chest X-ray showed cardiomegaly. She was intubated and resuscitated. Echocardiography revealed a large pericardial effusion (PE) with fibrin deposits adherent to the epicardium. A mobile ring-shaped mass (echodensity with echolucent centre; arrow-head) with independent motion was documented in the left atrium (LA) (Panels C and D). The differential diagnoses included localized tamponade or recurrent endocarditis with left atrial involvement. Emergnet pericardiocentesis was performed. Large amount of serous fluid were drained, with immediate resolution of the atrial mass. Despite intensive support, the patient died on the same day. Autopsy revealed extensive fibrous pericardial adhesions to the epicardium, most prominently at the upper third pericardial space and posteriorly. No vegetation was detected in the valves or heart chambers. Subsequent pericardial fluid and blood culture did not reveal any growth of organisms. Post-cardiac surgical pericardial adhesions may contribute to localized tamponade of the relatively lower pressure atrium, mimicking mass on echocardiography.

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