Like a dented bumper: a heart impressed by a giant left atrial appendage in a 22-year-old patient

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Congenital aneurysm of the left atrial appendage (LAA) is a rare cardiac anomaly. Owing to the initial absence of symptoms, LAA aneurysms usually manifest in the second or third decade of life. The pathogenesis of LAA aneurysms is not known, but some authors have hypothesized dysplasia of the musculi pectinati to be the cause. Potential hazardous sequelae include arrhythmias or systemic embolization. Early diagnosis and resection are of utmost importance to prevent secondary morbidity.

Here, we report on a 22-year-old subject presenting with new-onset atrial fibrillation. Radiography of the chest demonstrated a suspicious prominent cardiac silhouette. Subsequent echocardiography (Panel A) and MRI (Panel B) revealed a giant aneurysm of the LAA (9 × 7 cm). The patient then underwent cardiac surgery.

Panels C–F demonstrate the intra-operative aspect of the giant aneurysm, significantly compressing adjacent cardiac structures (F). The left atrial appendage was resected (D). Ablation therapy was undertaken concomitantly for treatment of atrial fibrillation. Intra-operative and post-operative courses were uneventful.

Our patient demonstrated the importance of early diagnosis and therapy in this rare case of LAA aneurysm.