Interatrial septal mass

İnteratriyal septal kitle

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Right Answer: 2. Lipomatous hypertrophy of interatrial septum

After those findings on TTE, we decided to perform a transesophageal echocardiography (TEE), which showed “dumbbell-shape” image, a very typical image for lipomatous hypertrophy (Fig. 2A, B). Multislice computed tomography (MSCT) and cardiac magnetic resonance imaging (CMRI) results were also consistent with lipomatous hypertrophy (Fig. 2C, D).

Although lipomatous hypertrophy of interatrial septum has been known since 1960’s, its pathophysiology is still unclear. It may either cause no symptoms or cause arrhythmia or symptoms related to its mass effect. It is characteristically a mature adipose tissue accumulation with cells resembling brown fat without a capsule formation, and typically there is no accumulation on foramen ovale region. Therefore on TEE, MSCT or CMRI it can be recognized as a typical image called, “hourglass” or “dumbbell-shape”. Having no capsule, typically origin from interatrial septum, not affecting foramen ovale and typical dumbbell-shape image helps to distinguish lipomatous hypertrophy from cardiac lipoma and other cardiac tumors.

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Figure 2. A, B. Transesophageal images of a very typical dumbbell-shape mass (thick white arrows) for lipomatous hypertrophy. MSCT (C) and CMRI (D) images of homogeneous, dumbbell-shaped fat deposition with smooth margins (thick black arrows) in the interatrial septum

CMRI - cardiac magnetic resonance imaging, LA - left atrium, dotted arrows show foramen ovale region, MSCT - multislice computed tomography, RA - right atrium