Cardiothoracic Anesthesia, Respiration and Airway

Images in Anesthesia: 3D systolic anterior motion of the mitral valve

A 71-yr-old man underwent coronary revascularization and mitral valve repair (quad-rangular resection). After cardiopulmonary bypass, systolic anterior motion (SAM) of the anterior mitral valve was seen using epiaortic 3D echocardiography (A–C) and conventional transesophageal echocardiography (D–E). In the 3D image, partial obstruction of the left ventricular outflow tract (LVOT) from the anterior leaflet was seen (A and B). Using shorter 3D slices the mitral apparatus was seen in diastole (C). Using a mid-esophageal view at 0°, the SAM (D) was seen with corresponding LVOT aliasing from partial obstruction (E). The use of 3D imaging enabled the observer to get a view as if one was in the left ventricular cavity looking toward the LVOT. The video clips are presented as “Additional Material” at www.cja-jca.org.

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