The Robotic Factor in Left Atrial Myxoma

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Abstract : Atrial myxoma is the most common primary cardiac tumor, and can result in cardiac failure secondary to obstruction, or systemic embolism due to fragmentation. Traditionally, excision of atrial an myxoma has been performed through median sternotomy, however the robotic approach offers several advantages including less pain, improved cosmesis, and faster recovery. Here, we highlight the less well recognized advantages and technical aspects to robotic myxoma resection. This video-presentation demonstrates the resection of a papillary subtype left atrial myxoma using the DaVinci[®] Xi surgical robot. The 10x magnification and 3D vision allows for the interface between the tumor and the interatrial septum to be accurately dissected, without the need to patch the interatrial septum. Several techniques to avoid tumor fragmentation and embolization are demonstrated throughout the procedure. The tumor was completely excised with clear margins. There was no atrial septal defect or mitral valve injury on post operative transesophageal echocardiography. The patient was discharged home on the fourth post-operative day. This video-presentation highlights the advantages of the robotic approach in atrial myxoma resection compared with sternotomy, as well as emphasizing several technical considerations to avoid potential complications.

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