Echocardiographic Findings and Clinical Correlation With Cardiac Myxoma

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This imaging vignette describes the association of echocardiographic findings with clinical course, dividing myxomas on the basis of size (Figure 1), morphology (Figure 2), and location (Figure 3) in 378 patients with complete excision of cardiac myxoma in a single center in our hospital. Large size was associated with cardiac symptoms (p < 0.005), polypoid type was associated with embolic symptoms (p < 0.005), atypical location was associated with constitutional symptoms (p < 0.005), and typical location was associated with post-operative arrhythmias (p < 0.005). Young age and atypical location were associated with recurrence (p < 0.05). However, echocardiographic findings relating to size, shape, and site of origin did not affect survival (Figure 4).

**FIGURE 1** Myxoma Classification by Size

Myxomas can be divided into large (largest diameter >5 cm, n = 203, 54%); and small (largest diameter <5 cm, n = 175, 46%), based on a median largest diameter of 5.0 ± 1.8 cm by echocardiography. (A) Transthoracic echocardiography (TTE) showing a myxoma (arrow) in the left ventricle (LV). (B) TTE showing a myxoma (arrow) in the right atrium (RA). (C) Three-dimensional TTE showing a myxoma (arrow) in RA. (D) Three-dimensional TTE showing a myxoma (arrow) in LV. (E, F) Transesophageal echocardiography showing a myxoma (arrow) in the left atrium (LA).
Myxomas can be divided into polypoid (soft and irregular shape with mobile surface, n = 216, 57%) and round types (solid and round shape with nonmobile surface, n = 162, 43%). The myxoma of polypoid type is shown as follows: (A) Echocardiography appearance. (B) Introperative photograph. (C) Histological appearance (hematoxylin and eosin stain [HE], original magnification ×100). (D) Echocardiography appearance. (E) Introperative photograph. (F) Histological appearance (HE, original magnification ×100). The myxoma of round type is shown as follows. (G) Echocardiography appearance. (H) Introperative photograph. (I) Histological appearance (HE, original magnification ×100). (J) Echocardiography appearance. (K) Introperative photograph. (L) Histologic appearance (HE, original magnification ×100).
Myxomas could be divided into typical (attached to the interatrial septum in the left side, n = 269, 71%) and atypical locations (attachment to sites other than the left side of the interatrial septum, n = 109, 29%). Typical locations are as follows: (A) A myxoma in the LA. Atypical locations are as follows: (B) The myxomas in LA (large arrow) and the LV (small arrow). (C) A myxoma (arrow) in the RA. (D) A myxoma (arrow) in LV. (E) A bialtrial myxoma (arrows). (F) A myxoma (arrow) in the right ventricle outflow tract (RVOT). (G) A myxoma (arrow) on the atrial side of the anterior tricuspid leaflet. (H) A myxoma (arrow) arising from the anterior wall of the superior vena cava. (I) A myxoma (arrow) arising from the inferior vena cava. Abbreviations as in Figure 1.
(A) There were no significant differences in survival between the large type and the small type ($p = 0.935$). (B) There were no significant differences in survival between the round type and the polypoid type ($p = 0.609$). (C) There were no significant differences in survival between the typical location and the atypical location ($p = 0.172$).