

Thymoma Arising Within Cardiac Myxoma: A Report of 2 Cases

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Context

Hematopoietic, glandular, and mesenchymal tissue may occasionally be seen in cardiac myxoma. Ectopic endocrine and thymic tissue elements have also rarely been described. This report documents the first description, to the best of our knowledge, of thymoma arising primarily within cardiac myxoma.

Design

Patients were identified from the consultation files of one of the authors. Histories, follow-up, and gross descriptions of the tumors were obtained by chart review following internal review board approval and in compliance with the Health Insurance Portability and Accountability Act. All slides were reviewed and immunoperoxidase staining of formalin-fixed paraffin-embedded tissue sections was performed.

Results

Two patients (a 69-year-old man and 77-year-old woman) with this entity were identified. Neither patient had evidence of thymoma in the mediastinum, thorax, or neck. One tumor arose in the left atrium and one in the right atrium. Both tumors had foci of classic cardiac myxoma with rings and chains of characteristic myxoma cells in a paucicellular background. Epithelial thymoma, comprising 30% to 70% of the tumors, was characterized by a lobulated sheet-like growth pattern with areas of loosely aggregated syncytia and punctuated by vessels with prominent perivascular spaces. Immunophenotypically, the thymoma component expressed keratin AE1/AE3, cytokeratin 7 (CK7), CAM 5.2, EMA, CD10, CD31, CD34, calretinin, and vimentin, but not CK5/6, CK20, CD68, or mesothelin.

Conclusion

While thymic rests have previously been identified within cardiac myxoma, this report is the first description of epithelial thymoma arising in cardiac myxoma. The most likely explanation for this extremely unusual finding is neoplastic transformation of thymic rests within a myxoma.