

Meeting abstract

407 Characterization of myocardial mby CMR

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from 11th Annual SCMR Scientific Sessions
Los Angeles, CA, USA. 1–3 February 2008

Published: 22 October 2008

Journal of Cardiovascular Magnetic Resonance 2008, **10**(Suppl 1):A121 doi:10.1186/1532-429X-10-S1-A121

This abstract is available from: <http://jcmr-online.com/content/10/S1/A121>

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Introduction

Eighteen y/o female with recurrent granular cell tumor excised X3 from groin over 3 year period. After 3rd recurrence, the patient and family agreed to aggressive chemotherapy regime. An echocardiogram was performed for cardiac clearance prior to treatment which showed normal systolic LV function but a thickened lateral wall with potential mass. The diagnosis of metastatic disease, hypertrophic cardiomyopathy, primary cardiac malignancy, infiltrating disease or Fabry's disease were considered.

Purpose

Cardiac MRI was performed to characterize abnormalities seen on echocardiogram.

Methods

Patient was scanned in a Siemens 1.5 T Avanto scanner. All sequences were cardiac gated. Multi plane Trufisp, HASTE, STIR, TSE T1, Fat Sat were performed. After Gadolinium administration, perfusion, Phase Sensitive Inversion recovery and TSE T1 were completed.

Results

Trufisp imaging showed normal LV function with thickened basal anterolateral and inferolateral wall. On black blood TSE the thickened area is isointense and appear to be intramyocardial. Fat suppression sequences show no saturation of the thickened area. On STIR, the thickened area was hyperintense. Perfusion imaging in four chamber and short axis views showed a well defined mass measuring 2 × 3 cm. Phase Sensitive Inversion Recovery images 15 minutes post gadolinium infusion showed heterogeneous enhancement of the mass. Also noted was an addi-

tional area of mid myocardial enhancement in the mid anterior wall. The combination of 1st pass perfusion and PSIR sequences lead to a differential diagnosis of metastatic tumor or malignant or benign primary cardiac tumor. Review of the specimen from groin site excision raised suspicion for sarcoma.

Conclusion

Cardiac MRI perfusion and delayed enhancement imaging is an effective noninvasive technique to characterize masses in the myocardium that may masquerade as other cardiomyopathic diseases.