

CASE REPORT

A Man with a Neck Mass, Pleural Effusion and Hypoechoic Masses in the Right Atrium and Ventricle

Rabiya Jalil*, Habib ur Rehman

CASE STUDY

A previously healthy 55-year old Caucasian male presented with a two month history of flu-like symptoms, dry cough, and progressive shortness of breath. He also presented with a one and a half month history of a slowly growing painless swelling on the left side of his neck. Examination revealed normal vital signs, an erythematous, firm but mobile mass on the left side of the neck, and signs of a right sided pleural effusion.

Transesophageal echocardiography (TEE) showed a 4.5 X 3 cm echodensity in the right ventricle. Furthermore, a 3.5 X 3.5 cm sessile echodensity was noted in the right atrium. The left and right ventricles were normal in size and function with an ejection fraction of 60%. There was trace circumferential pericardial effusion.

CT scanning of the neck displayed a fungating and ulcerating soft tissue mass situated at the dermal layer measuring 3.5 X 1.7 cm and located above the level of the hyoid at the lower end of the left parotid gland. CT of the chest revealed an extensive bulky filling defect in the right atrium, right ventricle, and outflow track at the level of the pulmonary valve. Multiple low density lesions were evident in the right lobe of the liver (Figure 1). Lymphadenopathy was noted inferior to the aortic bifurcation.

In addition, biopsy of the neck mass revealed a lymphoid infiltrate with atypical features. A majority of cells were positive for CD20, CD10, CD79a, and TdT, but negative for CD34, and BCL-2 on immunohistochemical staining. Proliferation rate approached 100% for Ki-67. The morphology was consistent with a high grade B-cell lymphoma with atypical Burkitt/Burkitt-like features.

DISCUSSION

Incidence of cardiac neoplasia is very low (1). Most cardiac neoplasms are metastatic, atrial myxoma being the most common primary cardiac tumor. Lymphomas constitute 9% of the total metastases. Cardiac involvement by disseminated non-Hodgkin's lymphoma has been documented in approximately 20% of autopsy cases to the heart (2).

Burkitt-like lymphoma is a highly aggressive form of non-Hodgkin's lymphoma and associated with poor short-term survival. Extranodal Burkitt Lymphoma involving the heart is rare and seldom recognized clinically. Diagnosis is usually made late because of the non-specific nature of the symptoms. Right-sided heart failure, dyspnea, superior vena cava obstruction, pericardial effusion with or without tamponade, and rhythm disturbances are the usual presenting features. The average age at presentation is sixty, with a slight male predominance (3). Transesophageal echocardiography (TEE) is superior to transthoracic echocardiography (TTE) in assessment of cardiac lymphomas and typically shows a hypoechoic mass in the atria or ventricles that is often associated with pericardial effusion. Although multidetector computed tomography and magnetic resonance imaging will provide information about the staging of disease, biopsy of the mass is needed to make the diagnosis (4). Chemotherapy is the first line treatment, however complete remission is achieved in less than 60% of patients.

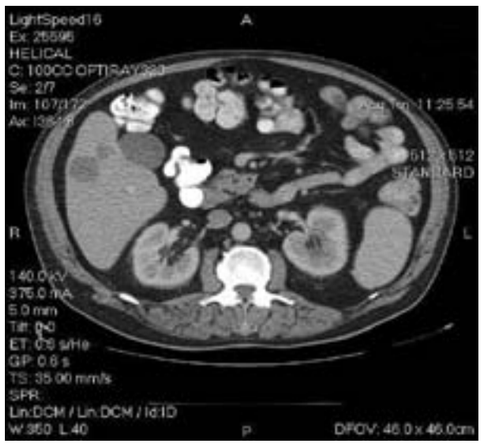

Figure 1:CT image showing multiple low density lesions in the liver.

*To whom correspondence should be addressed:
Dr. Rabiya Jalil
Clinical Assistant Professor, Regina Qu'Appelle Health Region
Regina, SK, S4P 0W5, Canada
Email: habib31@sasktel.net

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Rabiya Jalil (MD 2009) is a graduate of University of Saskatchewan and is currently completing her residency training at the University of Calgary. Her other research interests include medical education and women's health.

Habib ur Rehman (MBBS 1989, FRCPI 2004, FRCPC 2008, FRCP (Glas) 2010, FACP 2011) is a Clinical Assistant Professor at the Department of Medicine at the University of Saskatchewan. He is also Assistant Programme Director for Internal Medicine at the Regina General Hospital and Head of the Medical Teaching Unit.