


Primary cardiac lymphoma in patients with chronic hepatitis C infection

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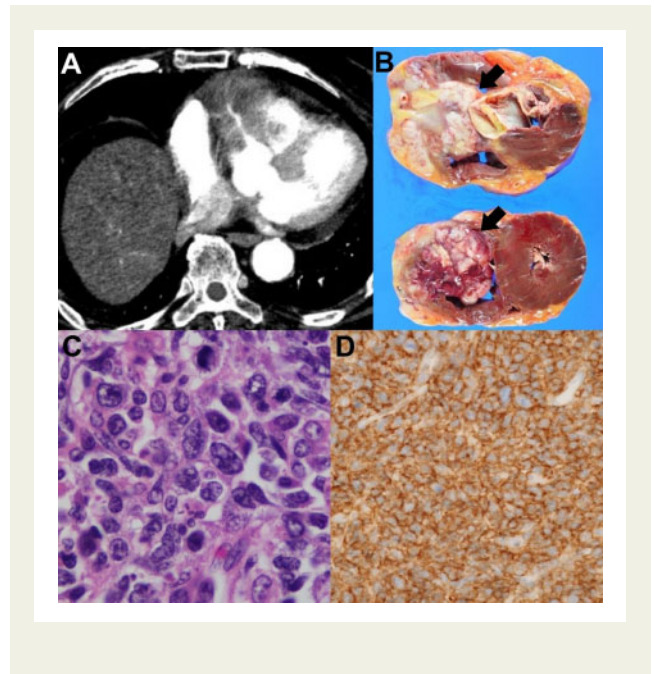
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An 84-year-old woman with chronic hepatitis C (HCV) infection was admitted for anorexia and malaise. She did not experience fever, chest pain, palpitations, or dyspnoea. An electrocardiogram showed no remarkable findings, but her condition deteriorated rapidly; hypotension and hypoxaemia were diagnosed, which led to her death. As the patient presented elevated serum lactate dehydrogenase levels (968 IU/L) before her death, malignant lymphoma was suspected. Her soluble interleukin-2 receptor level was also high (998 U/mL), suggesting cancer growth. Conventional computed tomography revealed a multilobulated mass of approximately 70 mm over the right atrium (RA) and right ventricle (RV), penetrated by the right coronary artery (Panel A), but no lymphadenopathy was observed. Autopsy revealed a mass on the cardiac wall invading the lumen of the RA/RV (Panel B, arrow). A diffuse large B-cell lymphoma (DLBCL) was identified histopathologically. Large, diffusely proliferated tumour cells were noted on haematoxylin–eosin staining and were CD20-positive on immunostaining (Panels C and D, respectively). We confirmed that the patient had primary cardiac lymphoma (PCL). Autopsy revealed the patient's right heart system to be highly invaded by lymphoma and narrowing. In addition, ineffective cardiac output was suspected. Therefore, death due to heart failure was diagnosed. DLBCL cells were found to have infiltrated multiple organs on autopsy, resulting in multiple organ failure due to PCL.

PCL is a non-Hodgkin's lymphoma that involves the heart with or without the involvement of the pericardium. The bulk of the tumour was in the heart. PCL accounts for 1.3% of all primary malignant cardiac tumours, often arising from the right heart and infiltrating the RA and/or RV. Patients with PCL have a poor prognosis. The median survival after treatment is reported to be approximately 7 months.

HCV is a risk factor for malignant lymphomas, particularly in B-cell non-Hodgkin lymphoma. Despite few previous reports, clinicians



should be aware that PCL can also occur in HCV patients, as in this case.

Consent: The author/s confirm that written consent for submission and publication of this case report including image(s) and associated text has been obtained from the patient in line with COPE guidance.

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