AV nodal dissociation and facial droop: An atypical presentation of lymphoma

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Introduction

Diffuse large B cell lymphoma is the most common lymphoid malignancy. ¹

Symptoms commonly consist of lymphadenopathy and constitutional symptoms at diagnosis.

Extra-nodal symptoms occur in 20-40% of patients at initial diagnosis.

Cardiac conduction abnormalities and neurologic deficits are rarely the presenting symptoms of DLBCL. ²

Case

50-year-old female with initial presentation of shortness of breath and chest pain found to be bradycardic with hypotension (HR: 40, BP: 92/51).

She was treated in an ICU with atropine injections and a dopamine infusion for symptomatic bradycardia

Developed lower extremity swelling, dyspnea on exertion and elevated troponin (46ng/L). Ischemic work up pursued.

Electrocardiogram: Junctional bradycardia

Transthoracic echocardiogram: normal ejection fraction (60%) and no valvular abnormalities

Left heart catheterization was unrevealing

Patient developed a left sided facial droop early in her course. Concern for Lyme disease due to symptomatic bradycardia and facial droop. Ramsay Hunt Syndrome was included on the differential.

Initial treatment: Ceftriaxone and antiviral therapy

Head CT: no evidence of intracranial abnormality

Lyme titers negative

Pacemaker placed

CT abdomen pelvis performed due to leg pain. Identified left renal lesion with enhancement. Initially concerning for infiltrative malignancy. Renal lesion was biopsied.

Her presenting symptoms continued, including lower extremity edema while awaiting biopsy results and she was again admitted. She also developed atrial flutter.

Labs & Imaging

WBC: 26k/uL  Hgb: 10.9g/dL  Plt: 198k/uL  Differential: neutrophilia

Peripheral smear: no blasts  Lyme titers: negative

Lactate: 2.1  CRP: 4.52  ESR: 10  LDH: 778

ALT: 342  AST: 176  ALP: 86  Tbill: 0.4

CT body: Enhancing densities at lateral aspect of the left kidney measuring 2.5cm thick with bilateral urethral thickening. Findings consistent with infiltrative malignancy.

Case (cont.)

Left kidney biopsy revealed high-grade B-cell double-hit DLBCL. Treatment was initiated during her hospitalization.

Ramp-up therapy

R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone)

Definitive induction therapy

DA-R-EPOCH (rituximab, etoposide, prednisone, vincristine, cyclophosphamide, doxorubicin)

CNS prophylaxis: via Ommaya reservoir

etoposide, cytarabine, methotrexate, gemcitabine, rituximab.

Despite optimal treatment, her DLBCL progressed.

Complications: osteolytic lesions, Ommaya reservoir infection, adrenal insufficiency, debilitating neurologic symptoms including cranial deficits, recurrent aspiration, headaches, and neurogenic pain.

Clinical Course

Left renal lesion biopsy: aggressive B-cell lymphoma

FISH: high-grade B-cell lymphoma; double hit (C-Myc, BCL-6 rearrangements on FISH)

CSF: Lymphoma cells.

Bone marrow: Negative for lymphoma.

PET/CT: Consistent with bony lesions, pericardial disease and abdominal organ infiltration

MRI: leptomeningeal & cranial nerve enhancement of CNS and spinal cord consistent with CNS involvement

Conclusions

Cardiac conduction and cranial nerve abnormalities are a marker of late and aggressive disease if associated with DLBCL. ³

Cardiac conduction abnormalities as a marker of CNS involvement is a unique presentation of DLBCL.

Myocardial involvement is more often asymptomatic and identified on autopsy.¹,⁴

Cardiac MRI is the best test to identify specific lesions of the cardiac conduction system. ³

Maintain a broad differential diagnosis. This patient’s signs and symptoms are a marker of systemic disease resulting in a diagnosis of a high-grade lymphoma.

References


