Ventricular tachycardia revealing cardiac infiltration by mycosis fungoides

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Case-based learning from the ESC Cardiologists of Tomorrow
Conflict of Interest

• Nothing to declare
Case Report

• 53-year old male

• Previous diagnosis:
  – Dyslipidemia
  – Mycosis fungoides
    • Diagnosed 15 years ago
    • Previously medicated with acitretin and psolaren with UVA
    • Currently treated with bexarotene and electron beam radiation
Case Report

• 10 days before admission:
  – Fever and left lumbar pain
  – Amoxicillin/clavulanic acid → ceftriaxone

• Day of admission:
  – Malaise, dizziness, presyncope, and nausea
Case Report

• Tachycardic (180 /min) and hypotensive (100/70 mmHg)

• Cardiac troponin I = 3.47 ng/mL
Case Report

- 3rd day of hospitalization

- Electric cardioversion → iv amiodarone
Case Report
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- 15th day of hospitalization
  - Sustained monomorphic VT → Electric cardioversion
  - Complete AV block → Temporary pacemaker
  - Asystole with no pacemaker capture
  - Advanced CPR → no response
Case Report

- Nodule in the left adrenal gland
- Right parietal subcutaneous nodule
Case Report

Hematoxylin and eosin, 200x

CD3, 200x

Ki-67, 200x
Case Report

- Final diagnosis
  - Mycosis fungoides with myocardial and left adrenal infiltration (stage IVB)
Discussion

• Mycosis fungoides is the most common cutaneous T-cell lymphoma

• Incidence 0.29/100,000

• Median age 55-60 years

• 2:1 male to female ratio
Discussion

• Typically presents with multiple cutaneous plaques or nodules, or with generalized erythroderma

• Diagnosis:
  – clinical appearance
  – epidermal or dermal lymphocytic infiltrate with T-cell associated antigens (CD2+, CD3+, CD5+)

• Staging: tumor, node, metastasis (TNM) system
Discussion

• Extracutaneous involvement usually correlates to the extent of cutaneous disease:
  – lymphadenopathy
  – visceral involvement (lungs, spleen, liver, and gastrointestinal tract)

• Cardiac involvement is rarely diagnosed
Discussion

• Roberts et al. (1968)
  – 196 autopsies of patients with malignant lymphoma
  – Cardiac involvement in 24% (33% of patients with MF)
  – Only 3 patients with MF had symptoms attributable to lymphomatous involvement

• To our knowledge there are no reports of cardiac infiltration by MF presenting as MVT