My Personal Experience in Cardiac Sarcoidosis

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Case 1:
M/44
h/o CHF & VT
Cardiac transplantation (Jan 2000)
Case 2: M/58

- **C/C: dysphagia** (onset: 6 months ago)
- 4 years ago, pacemaker implantation d/t complete AVB (outside hospital)
- 6 months ago, swallowing difficulty developed (especially after swallowing of solid food)
- **Work up for dysphagia**
  - Esophagography:
    extrinsic compression at distal esophagus
- Chest CT/Whole body PET
  - multiple mediastinal LAP
  - r/o Sarcoidosis
  - r/o Lymphoma

- Biopsy, Left SCLN
  → Non caseating granuloma
- LVEF 42%
- Akinesia of basal anteroseptum and basal septal wall with moderate LV dysfunction
- Compatible with cardiac sarcoidosis
Case 3: F/48

- C/C: DOE (onset: 1 year ago)
- Holter monitoring AFL with slow ventricular conduction, HR 33
- LVEF 59%
- Basal septal thinning, akinesia
- Minimal pericardial effusion
- Endomyocardial Bx; subendocardial fibrosis
Case 4: F/63

- **C/C:** chest discomfort & palpitation (onset: 3 mo ago)
- At ER: VT → Cardioversion
- CAG: normal
- LVEF 46%
- Akinesia of inferoposterolateral wall of LV
- Thinning in posterior wall
- r/o multivessel coronary artery
- Epigastric discomfort in hospital
- APCT; aggregated Lymph nodes; r/o Lymphoma; r/o Sarcoidosis
- HRCT; thickening of interstitium
- TBLB; Non caseating granuloma
Case 5: F/48

- C/C: recurrent syncope (onset: 1 mo ago)
- EPS: inducible VT (+)
- CAG: no significant stenosis
- LVEF 32%
- Multiple regional wall motion abnormality
- LV Posterolateral wall thinning/akinesia
- Endomyocardial Bx:
  - Hypertrophied some myocytes.
  - No granuloma
Case 6: M/48

- C/C: recurrent palpitation and dyspnea
- Pacemaker insertion before 2 years due to complete AVB
Extracted heart:
Granuloma at tricuspid valve
Evaluate the prevalence and describe the clinical characteristics of probable cardiac sarcoidosis by echocardiographic screening in patients with conduction abnormalities or ventricular arrhythmias.

*Korean Circ J 2011;41:313-320*
Patients and Methods

- Retrospectively reviewed the echocardiographic images and medical records
- 1184 consecutive patients received pacemaker (from Jan. 1989 to Dec. 2007)
- 173 consecutive patients received ICD (from Jan. 1996 to Dec. 2007)
## Prevalence

<table>
<thead>
<tr>
<th></th>
<th>Pacemaker</th>
<th>ICD</th>
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<tbody>
<tr>
<td>Total patients</td>
<td>1184</td>
<td>173</td>
</tr>
<tr>
<td>Cases with RWMA</td>
<td>214</td>
<td>71</td>
</tr>
<tr>
<td>Echocardiography suggesting sarcoidosis</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td><strong>Prevalence (%)</strong></td>
<td><strong>1.2 (6.5)</strong></td>
<td><strong>4.0 (9.9)</strong></td>
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Clinical Events During Follow-up

- Follow-up duration: mean 75±18 months

<table>
<thead>
<tr>
<th>Total events</th>
<th>12/21 (57%)</th>
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<tbody>
<tr>
<td>Cardiac transplantation</td>
<td>1</td>
</tr>
<tr>
<td>CHF</td>
<td>4</td>
</tr>
<tr>
<td>VT</td>
<td>3</td>
</tr>
<tr>
<td>A. flutter → RFCA</td>
<td>2</td>
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<table>
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<tr>
<th>Death</th>
<th>2/21 (10%)</th>
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<tr>
<td>Cardiac</td>
<td>1</td>
</tr>
<tr>
<td>Non cardiac</td>
<td>1 (GI bleeding)</td>
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Korean Circ J 2011;41:313-320
Extracardiac Involvement

- **Case No.10, M/58**
  - Involved organ: lymph node, heart

- **Case No.12, F/57**
  - Involved organ: lung, lymph node, heart

- **Case No.21, M/63**
  - CT; calcified granuloma in liver
  - Endomyocardial Bx.; negative

- **Endomyocardial biopsy in 6 patients failed to demonstrate cardiac sarcoidosis**

Korean Circ J 2011;41:313-320
Case 7: F/62, DOE (class II)
F/62, DOE (class II)
Normal ESR & CRP

Pd 60 mg for 1 mo
Pd 30 mg for 2 mo
Pd 15 mg for 2 mo
Pd 5 mg........

Nov 2015
Dec 2015
Oct 2016
Jul 2017
F/U, 2 years later
Case 8: M/19, palpitation
Case 9: F/64
Sarcoidosis (LN/lung/ACE/uveitis/skin nodule) since 2014 - Pd
Conclusions & My Bias

- Clinical importance of cardiac sarcoidosis is underestimated
- Poor performance of the current guideline for cardiac sarcoidosis
- Role of imaging-based diagnosis?
- Communication with EP specialists & HF specialists
- Lack of effective treatment option – unmet clinical need