Epidemiology and management of atrial fibrillation in the community in Italy: the Italian Survey of Atrial Fibrillation Management (ISAF study)

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Atrial Fibrillation

Serious clinical problem and a significant cause of expenditures for the national healthcare systems

- The most common arrhythmia in every day practice
- Affecting significantly the quality of life
- Associated with severe coagulative and hemodynamic consequences
- Cause of 1.5% of all emergency room admissions and 3% of all hospital admissions
**Atrial fibrillation**

Prevalence is changing over the time

It is crucial

to update our knowledge on its real impact
on healthcare systems to allocate resources
Italian Survey on Atrial Fibrillation Management (ISAF Study)
ANMCO Arrhythmia Working Group-SIMG

Nationwide
Retrospective
Observational
Aims

- Prevalence, distribution of AF in the community
- Clinical characteristics of pts with AF
- Management of AF
**Methods**

- **SIMG research network**
  600 GPs trained for high quality data entry
  same office software to collect clinical data and manage pts

- **GPs involved in the Survey: 233**
  homogeneously distributed across Italy
Methods

- **Inclusion criteria**
  - all individuals aged $\geq 15$ yrs
  - with diagnosed AF (ecg, hospital discharge summary)
  - AF type and strategies on the basis of ESC definitions

- **GPs requested to fill out an Electronic Questionnaire**
  - Section 1: demographic and clinical characteristics, diagnostic tests
  - Section 2: treatment strategies and therapy
  - Section 3: catheter ablation results

- **Data collection**
  - Automatically extracted from electronic charts (mainly)
  - As “Aggregate”
AF prevalence

- **295,966** screened individuals representative of the Italian pop

- **6036 Pts with AF (2.04%)**

Prevalence in Italy: 1.85%
AF prevalence

California 1998: 0.90%
Scotland 2002: 0.94%
Italy 2011: 1.85%

* JAMA 2001;285:2370  ^ Heart 2007;93:606
Frequency distribution (by age and sex)

<table>
<thead>
<tr>
<th>Years</th>
<th>Females</th>
<th>Males</th>
<th>Tot</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-50</td>
<td>0.08</td>
<td>0.23</td>
<td>0.16</td>
</tr>
<tr>
<td>51-65</td>
<td>0.97</td>
<td>0.16</td>
<td>0.16</td>
</tr>
<tr>
<td>66-75</td>
<td>1.6</td>
<td>1.3</td>
<td>1.6</td>
</tr>
<tr>
<td>76-85</td>
<td>4.1</td>
<td>4.9</td>
<td>4.5</td>
</tr>
<tr>
<td>&gt; 85</td>
<td>8.3</td>
<td>10.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Tot</td>
<td>10.0</td>
<td>12.0</td>
<td>10.6</td>
</tr>
</tbody>
</table>
Type of AF

AF in Italy

- Parox: 55.5%
- Pers: 20.2%
- Perm: 24.3%
Symptoms and hospitalizations

Symptoms

Hospitalizations for AF in the last 5 yrs

No Palp Asth Dyspn Other
No 25 41 25 24 5
Palp 7%
Asth 37%
Dyspn 56%
Other
Clinical characteristics of AF pts

<table>
<thead>
<tr>
<th>Heart disease</th>
<th>Co-morbidities</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Hypertension</td>
</tr>
<tr>
<td>Hypert + LVH</td>
<td>Diabetes</td>
</tr>
<tr>
<td>CAD</td>
<td>Heart Fail</td>
</tr>
<tr>
<td>Valvular</td>
<td>COPD</td>
</tr>
<tr>
<td>Isch DCMP</td>
<td>Cerebro-vasc dis</td>
</tr>
<tr>
<td>Non-isch DCMP</td>
<td>Dementia</td>
</tr>
<tr>
<td>Others</td>
<td>Ren Fail (GFR &lt; 30)</td>
</tr>
</tbody>
</table>

≥ 3 Co-morbidities 29.6%
Treatment strategy

AF in Italy

56% Rate Control
44% Rhythm Control
## Antithrombotic therapy

<table>
<thead>
<tr>
<th></th>
<th>Rhythm Contr</th>
<th>Rate Contr</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHADS$_2$ ≥ 2</strong></td>
<td>50.8%</td>
<td>71.8%</td>
<td>62.6%</td>
</tr>
<tr>
<td><strong>No ATT</strong></td>
<td>26.6%</td>
<td>8.6%</td>
<td>16.5%</td>
</tr>
<tr>
<td><strong>Antiplatelets</strong></td>
<td>45.1%</td>
<td>31.8%</td>
<td>37.5%</td>
</tr>
<tr>
<td><strong>OAC</strong></td>
<td><strong>28.4%</strong></td>
<td><strong>59.8%</strong></td>
<td><strong>46%</strong></td>
</tr>
</tbody>
</table>
Conclusions

1) The prevalence of AF in Italy (1.85%) is two times higher than reported in other countries (0.94 Scotland, 0.9 California) in the previous decade

2) AF frequency increases along with ageing and prevails in males

3) AF patients are burdened by a high prevalence of multiple comorbidities in particular dementia (15%)

4) Rate control is the most pursued (55%) treatment strategy

5) OAC is still underused