One-year outcomes in new versus permanent atrial fibrillation: insights from the prospective, international GARFIELD Registry

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BACKGROUND

- First onset atrial fibrillation (AF) is a combination of all temporal patterns of AF.
- AF often progresses from short episodes to more prolonged attacks, which can result in permanent AF over time.1
- Anticoagulation for the prevention of thromboembolic events is recommended for all patients with AF who are at moderate-to-high risk of stroke and are without contraindications, irrespective of AF type (i.e. paroxysmal, persistent or permanent).5
- Patients with first detected or paroxysmal AF tend, however, to be untreated in terms of anticoagulant therapy.1,2

PURPOSE

To compare baseline characteristics, antithrombotic treatments initiated at AF diagnosis, and associated clinical outcomes at 1 year in patients with new versus permanent non-valvular AF using data from the international Global Anticoagulant Registry in the FIELD (GARFIELD).

METHODS

- GARFIELD is an ongoing, international, observational study of consecutively recruited adult (≥18 years) with newly diagnosed (≤6 weeks previously) non-valvular AF and ≥1 additional investigator-determined stroke risk factor.4
- Such risk factors were not prespecified in the study protocol, nor were they limited to those in risk-stratification schemes such as CHADS25 or CHA2DS2-VASc.6
- Investigator sites were representative of the distribution of AF care settings in each country.
- A total of 16,614 patients were recruited into cohort 1 at 540 randomly selected sites in 19 countries over a 2-year period; of these patients, 5089 were recruited retrospectively as a validation cohort, and 5525 were recruited prospectively and analysed in this analysis.7
- Type of AF at study entry was categorized as: newly diagnosed (≤6 weeks previously) non-valvular AF and ≥1 additional investigator-determined stroke risk factor(s).4
- These observational data suggest that patients with a diagnosis of new AF are younger and seemingly at lower cardiovascular risk than those with permanent AF, and are less likely to be treated with oral anticoagulants.
- Patients with new AF did not, however, have significantly lower adjusted rates of death or stroke/SE at 1 year than those with permanent AF.

RESULTS

- Of 5525 patients, 2477 (44.8%) had new AF and 785 (14.2%) had permanent AF.
- Compared to patients with permanent AF, those with new AF were younger, had higher heart rates, and lower stroke risk scores (Table).8
- Patients with new AF were also less likely to receive a vitamin K antagonist (VKA) and more likely to receive an antplatelet agent at AF diagnosis (Table 1).
- Rates of death (4.5% in new vs 5.0% in permanent), stroke/SE (1.3% vs 0.9%) (Figure 2) and major bled (0.7% vs 0.5%) at 1 year were similar among those with new or permanent AF.
- After adjustment, there were no significant differences in 1-year outcomes of death or stroke/SE according to type of AF (Table 2).

TABLE Patient characteristics according to type of AF

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>New AF (n = 2477)</th>
<th>Permanent AF (n = 785)</th>
<th>P value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, median (IQR), years</td>
<td>71 (63–78)</td>
<td>74 (67–80)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>BMI, mean±SD, kg/m²</td>
<td>27.3±5.9</td>
<td>28.1±5.4</td>
<td>0.10</td>
</tr>
<tr>
<td>Pulse, mean±SD, bpm</td>
<td>92.9±27.4</td>
<td>84.9±20.8</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Medical history, %</td>
<td>21.5±2.7</td>
<td>25.7±2.7</td>
<td>0.01</td>
</tr>
<tr>
<td>Hypertension</td>
<td>76.3±8.0</td>
<td>80.0±8.3</td>
<td>0.033</td>
</tr>
<tr>
<td>Acute coronary syndromes</td>
<td>10.2±1.0</td>
<td>10.1±1.0</td>
<td>0.90</td>
</tr>
<tr>
<td>Family history of premature cardiac disease</td>
<td>19.3±1.5</td>
<td>19.5±1.9</td>
<td>0.92</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>22.4±0.5</td>
<td>25.5±0.73</td>
<td>0.072</td>
</tr>
<tr>
<td>Systemic embolism</td>
<td>9.05±0.9</td>
<td>10.0±0.9</td>
<td>0.17</td>
</tr>
<tr>
<td>Bleding</td>
<td>2.9±3.8</td>
<td>3.8±3.2</td>
<td>0.22</td>
</tr>
<tr>
<td>Heavy alcohol consumption</td>
<td>3.1±2.3</td>
<td>3.2±2.4</td>
<td>0.25</td>
</tr>
<tr>
<td>Renal dysfunction (GFR &lt;60 mL/min)</td>
<td>13.4±10.8</td>
<td>13.0±10.8</td>
<td>0.099</td>
</tr>
</tbody>
</table>

*Significance testing by analysis of variance or chi-squared test as appropriate.

CONCLUSIONS

- These observational data suggest that patients with a diagnosis of new AF are younger and seemingly at lower cardiovascular risk than those with permanent AF, and are less likely to be treated with oral anticoagulants.
- Patients with new AF did not, however, have significantly lower adjusted rates of death or stroke/SE at 1 year than those with permanent AF.
- These data are preliminary so the results should be interpreted with caution.

DECLARATION OF INTEREST

The GARFIELD Registry is supported by an unrestricted research grant from Bayer Pharma AG.

REFERENCES

5. AF-HeART – European Hospital Georges Pompidou, Department of Cardiology, and René Descartes University, Paris, France; 6Bayer Healthcare Pharmaceuticals, Berlin, Germany; 7Catholic University, Santiago, Chile; 8Thrombosis Research Institute, London, UK

ACKNOWLEDGEMENTS

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