

# INCREASING PREVALENCE OF ATRIAL FIBRILLATION IN PATIENTS WITH A FIRST-EVER ISCHEMIC STROKE OVER TWO DECADES

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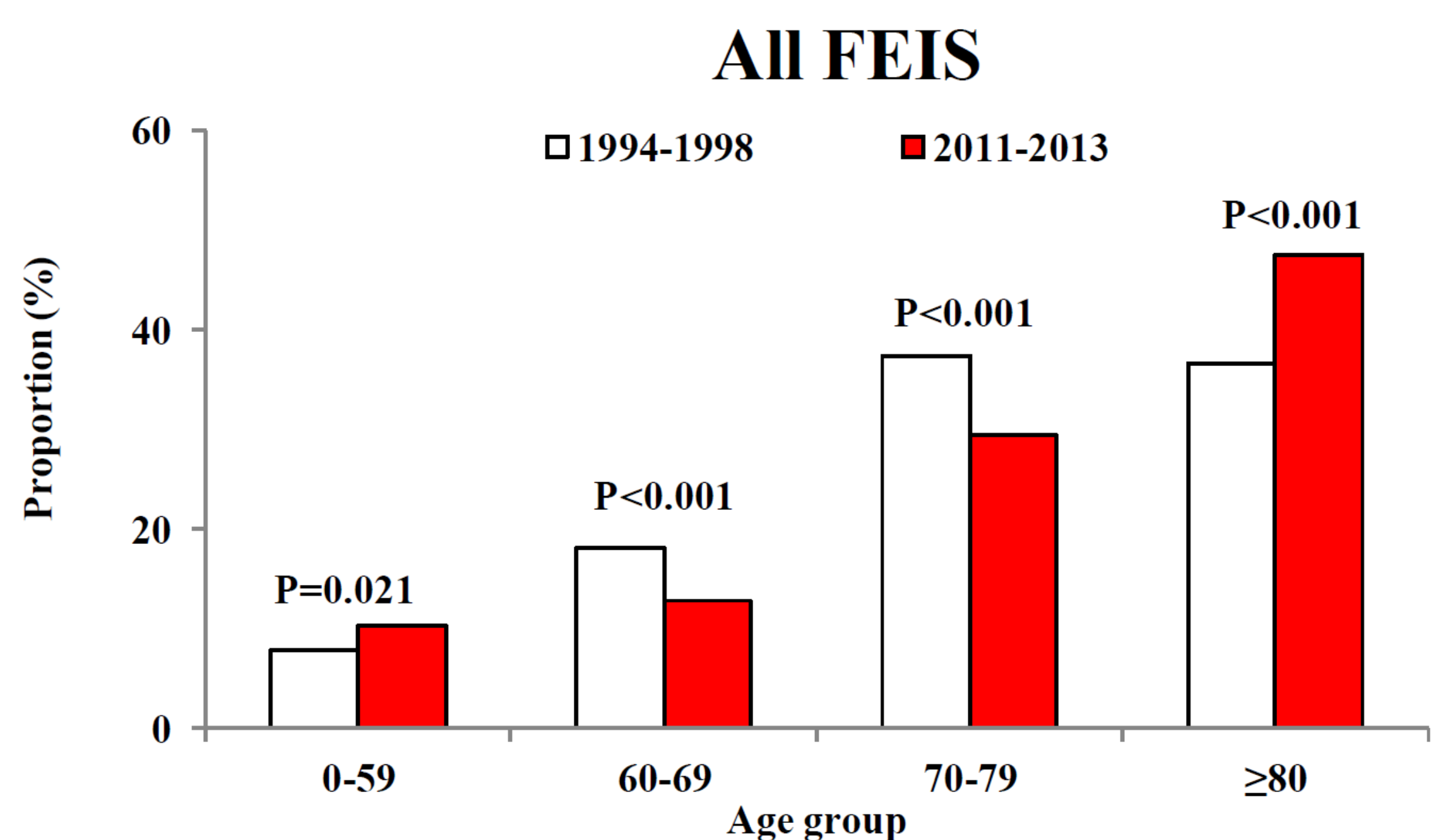
**BACKGROUND:** Atrial fibrillation (AF) is a known risk factor for ischemic stroke. The increasing AF prevalence in the general population may affect stroke epidemiology.

**METHODS:** In a prospective population-based registry including all residents in the district of L'Aquila, Italy, with a first-ever ischemic stroke (FEIS) in 2011-2013, we evaluated and compared AF prevalence with that found in the 1994-1998 registry.

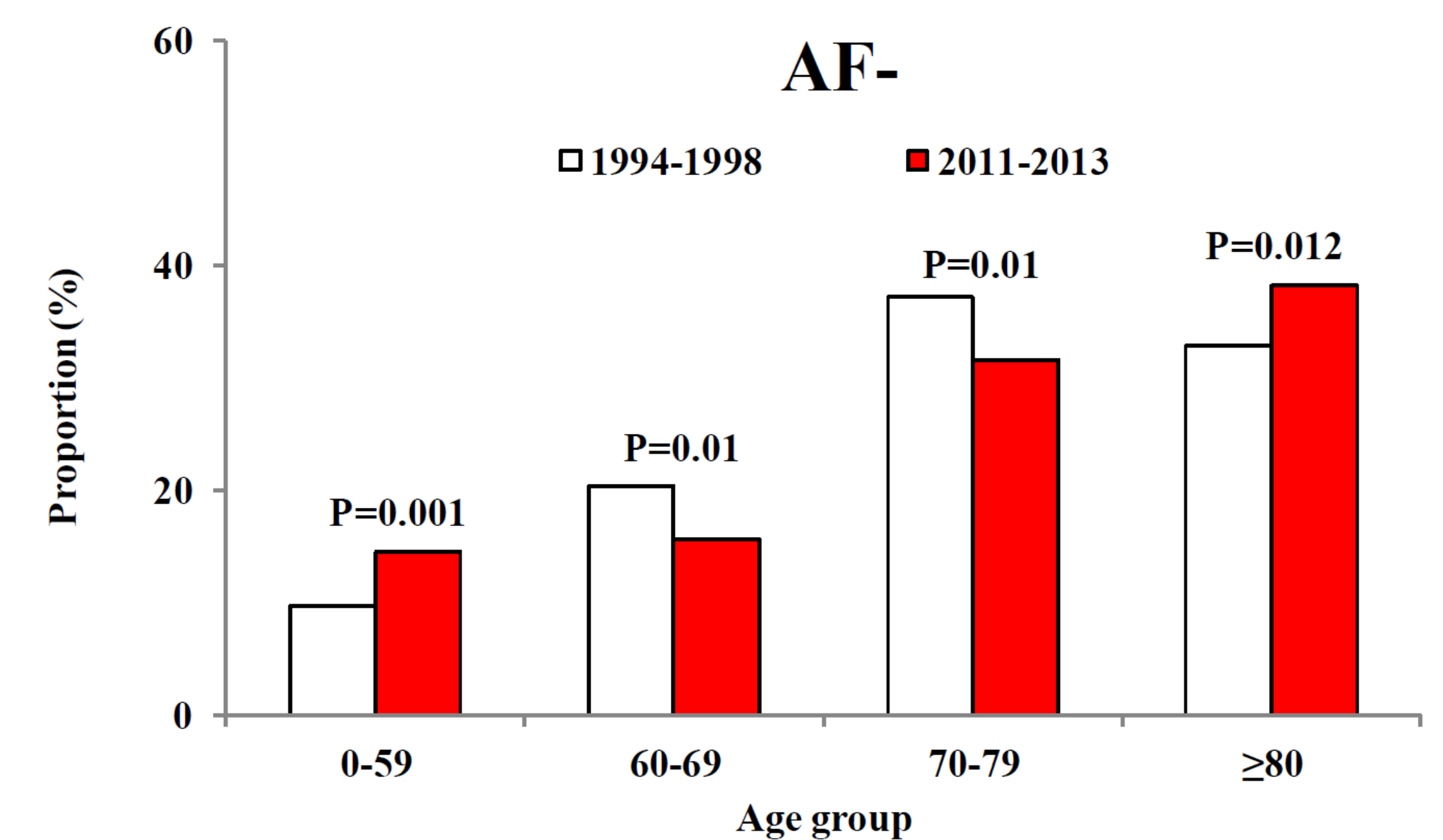
**RESULTS:** Out of 884 patients with FEIS, 285 (182 women, 63.9%) had documented AF; the arrhythmia was newly diagnosed in 64 (22.5%) patients. The proportion of FEIS from 1994-1998 through 2011-2013 increased among patients aged 0-59 and  $\geq 80$  years and decreased among those aged 60-69 and 70-79 years (Figure 1). Similar age-related trends were observed in the proportions of FEIS patients without AF (Figure 2). The prevalence of AF increased by 30.9% overall from 1994-1998 through 2011-2013 (24.6% to 32.2%;  $P < 0.001$ ), by 38.2% in women (28.5% to 39.4%;  $P < 0.001$ ), and by 20.2% in men (20.3% to 24.4%;  $P = 0.064$ ). In patients aged  $\geq 80$  years there was an overall 29.3% increase of the AF prevalence (35.2% to 45.5%;  $P < 0.001$ ) that was 41.8% in women (33.5% to 47.5%;  $P < 0.001$ ) and 56.4% in men (26.4% to 41.3%;  $P = 0.001$ ) (Figure 3), paralleled by a 29.8% increase of subjects aged  $\geq 80$  years in the resident population from 1994-1998 through 2011-2013 and a 11.1% decrease of the male/female ratio in the study population.

**DISCUSSION:** We found an increased AF prevalence in patients with FEIS over two decades, mostly in women and in the oldest-old, partly due to aging of the resident population and to the lack of disease modifying treatments. In patients aged  $\geq 80$  years the increase of AF prevalence was higher in men than in women despite the reported decrease of the male/female ratio. Those gender differences need to be further investigated as they may depend on different gender-related causes other than the association with concurrent comorbidities.

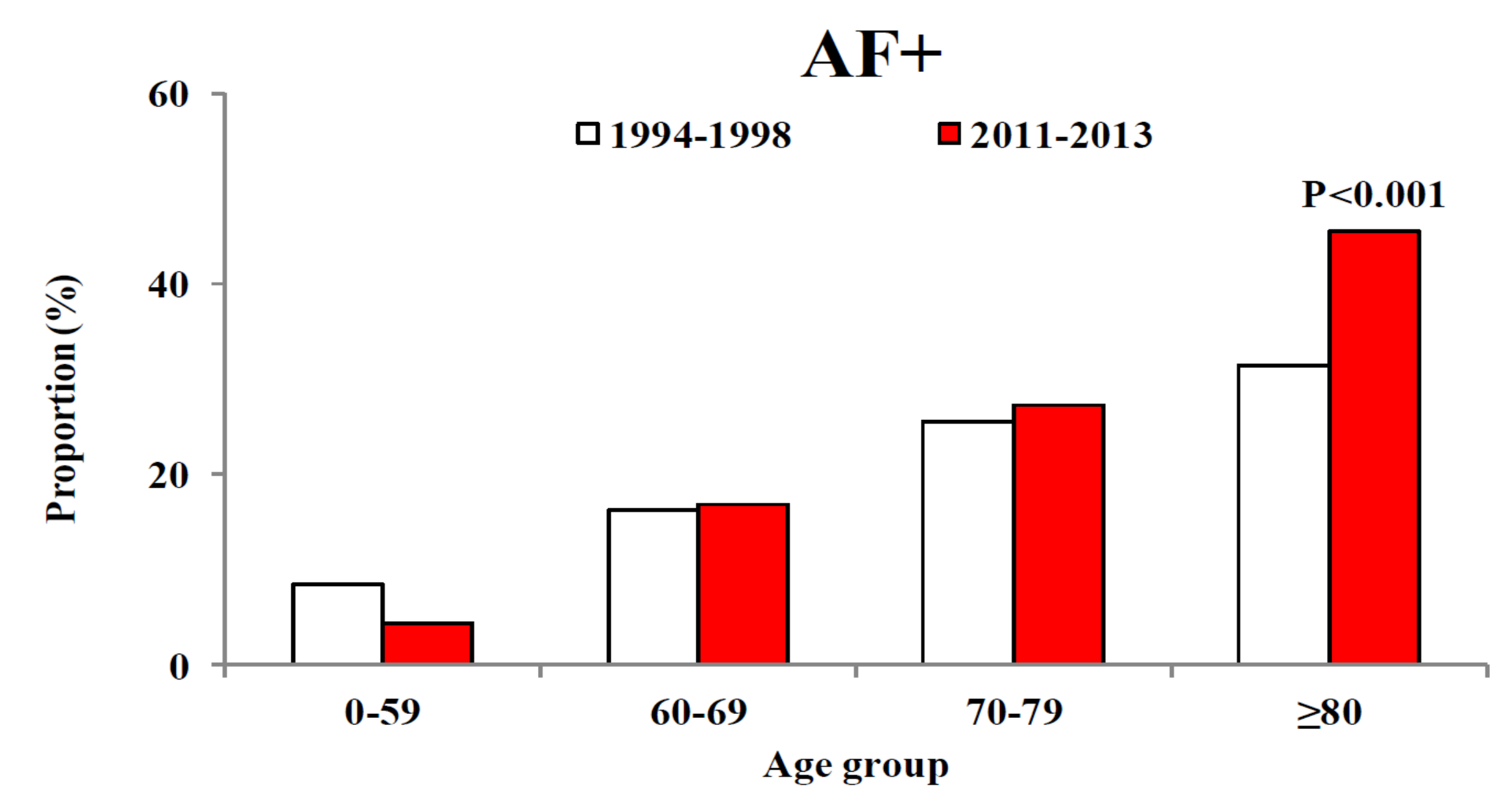
**Figure 1.** Age distribution of FEIS in 1994-1998 vs 2011-2013 registry



**Figure 2.** Age distribution of FEIS in patient without AF in 1994-1998 vs 2011-2013 registry



**Figure 3.** Age distribution of FEIS in patient with AF in 1994-1998 vs 2011-2013 registry



**References**

- *Stroke*. 2005;36:1115-1119
- *Riv. Italiana di Neurobiologia* 2006:109-136.