

Potential familial inheritance pattern in lone AF

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MedWire News: Patients with lone atrial fibrillation (AF) are more likely to have a first-degree family member with AF than other AF patients, US study results indicate.

"This suggests that an inherited trait may be particularly important in this subgroup of patients," Gregory Marcus and colleagues from the University of California in San Francisco write in the journal *Heart Rhythm*.

Marcus and team carried out a prospective observational study to examine the family history of AF in 54 patients with lone AF, 82 patients with AF, 84 with atrial flutter, 158 with other supraventricular arrhythmias, and 51 without arrhythmias.

Significantly more patients with AF reported having a first-degree family history of AF compared with the remainder of the cohort (25% vs 5%; $p < 0.001$).

In multivariable analysis adjusted for age, gender, race, hypertension, coronary artery disease, heart failure, and body mass index, the combined group of AF patients (lone and non-lone AF) were six times more likely to have a family member with AF ($p < 0.001$) than the rest of the patients.

Furthermore, lone AF patients were significantly more likely to have a first-degree family member with AF than those with non-lone AF, at 41% versus 14% ($p < 0.001$). After adjustments, lone AF patients remained significantly more likely than other AF patients to have a first-degree relative with AF (odds ratio=7.2, $p = 0.002$).

Marcus and co-workers conclude: "Future studies aimed at characterizing phenotypic differences in AF patients with and without a family history of AF can help elucidate the more exact inherited processes involved, potentially helping to imply candidate genes or gene regions."

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