**THE ASSOCIATION BETWEEN PLASMA BIG ENDOTHELIN-1 LEVELS AT ADMISSION AND LONG-TERM OUTCOMES IN PATIENTS WITH ATRIAL FIBRILLATION**

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**Objective**: Big endothelin-1 (ET-1) has been identified as a risk marker in a variety of cardiovascular diseases, while its prognostic role in atrial fibrillation (AF) is unclear.

**Method**: A total of 716 AF patients were enrolled and divided into high plasma levels of big ET-1 group and low plasma levels of big ET-1 group according to the optimal cut-off value of big ET-1 for predicting all-cause mortality. The primary outcomes were all-cause mortality and major adverse events (MAEs). Cox regression analysis was used to assess its prognostic value on outcomes.

**Results:** With the optimal cut-off value of 0.55 pmol/L, 326 (45.5%) patients were in high big ET-1 level group. Cardiac dysfunction and left atrial dilation were factors related to high big ET-1 levels. During a median follow-up of 3 years, patients with big ET-1 ≥ 0.55 pmol/L had notably higher risk of all-cause mortality (44.8% vs. 11.5%, P < 0.001), MAEs (51.8% vs. 17.4%, P < 0.001), cardiovascular death, major bleeding, and tended to have higher thromboembolic risk. After adjusting for confounding factors, high big ET-1 level was an independent risk factor for all-cause death (hazard ratio (HR) 2.216, 95% confidence interval (CI) 1.545-3.179; P < 0.001), MAEs (HR 2.047, 95% CI 1.503-2.788; P < 0.001), and cardiovascular death (HR 2.050, 95% CI 1.319-3.186; P = 0.001).

**Conclusion**: Elevated big ET-1 level is an independent predictor of long-term all-cause mortality, MAEs, and cardiovascular death in patients with AF.

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