CO22

Permanent Non-Valvular Atrial Fibrillation (NVAF) may be associated with therapeutic failure in hospitalized patients with history of atrial fibrillation.

Association Between Non-valvular Atrial Fibrillation Type And Therapeutic Failure In Patients With History Of Atrial Fibrillation Admitted To A Step-down Unit.

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Introduction

- Therapeutic Failure in patients with history of atrial fibrillation (AF) admitted to a step-down unit (SDU) is defined as transfer to the intensive care unit (ICU) or death .
- Numerous factors contribute to therapeutic failure including age, cardiogenic shock, septic shock, multiple comorbidities, oral anticoagulants and antiplatelets therapy.
- We aim to determine the association between NVAF type and therapeutic failure in patients with AF history admitted to a step-down unit.

Methods

1. This study is a retrospective cohort study, based on secondary data analysis of electronic medical records from the AFICILL 1.0 database [1].
2. The primary setting was the internal medicine department at Azienda Ospedaliero-Universitaria in Italy.
3. Exposed cases and exposed controls were both matched with a 1:3 ratio based on the exposure prevalence. The association between NVAF type and therapeutic failure in 1705 patients admitted to an SDU was analyzed.
4. Logistic regression was used for analysis in addition to, subgroup analysis using multivariate logistic regression was applied to adjust for gender and age.
5. Data were analyzed using IBM SPSS 20, reporting odds ratios, 95% confidence intervals, and p-values.

Results

- NVAF had an odds ratio (OR)=1.605, 95% confidence interval (CI) (1.007-2.557), p-value=0.02, favoring permanent NVAF type. After adjusting for age and gender, the OR=1.40, 95% CI (0.87-2.24) and (p-value=0.314) for permanent NVAF type, OR=1.44, 95% CI (1.07-1.92), (p-value=0.02) for males and OR=1.06, 95% CI (1.04-1.07), (p-value<0.001) for every unit increase in age.

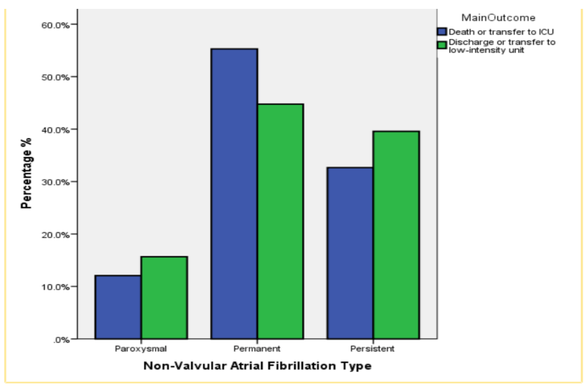


FIGURE 1: Bar Chart Showing The Percentage Of Occurrence Of The Main Outcome In Different NVAF Types.

Discussion

- Permanent NVAF type, in AF patients admitted to a step-down unit, initially appeared to be associated with higher risk of death/ICU transfer.
- After adjusting for age and gender, the association between Permanent NVAF type and adverse outcomes was substantially attenuated and no longer statistically significant, warranting further studies can be conducted to examine the association between NVAF and the outcome.
- While male gender was independently associated with 44% higher odds of adverse outcomes compared to females, even after adjusting for age and NVAF type.

Tables 1,2 & 3 : Showing the baseline characteristics of patients based on NVAF type, gender and age.

Table 1 **Type of NVAF * Gender of participant Crosstabulation**

			Gender of participant		
			Female	Male	Total
Type of NVAF	Paroxysmal	Count	131	129	260
		% within Type of NVAF	50.4%	49.6%	100.0%
	Persistent	Count	297	364	661
		% within Type of NVAF	44.9%	55.1%	100.0%
	Permanent	Count	415	369	784
		% within Type of NVAF	52.9%	47.1%	100.0%
Total		Count	843	862	1705
		% within Type of NVAF	49.4%	50.6%	100.0%

Table 2 **Age (years) * Gender of participant**

Age (years)

Gender of participant	Mean	N	Std. Deviation
Female	79.92	843	9.790
Male	75.57	862	11.597
Total	77.72	1705	10.956

Table 3 **Age (years) * Type of NVAF**

Age (years)

Type of NVAF	Mean	N	Std. Deviation
Paroxysmal	77.44	260	9.838
Persistent	74.21	661	12.751
Permanent	80.77	784	8.509
Total	77.72	1705	10.956

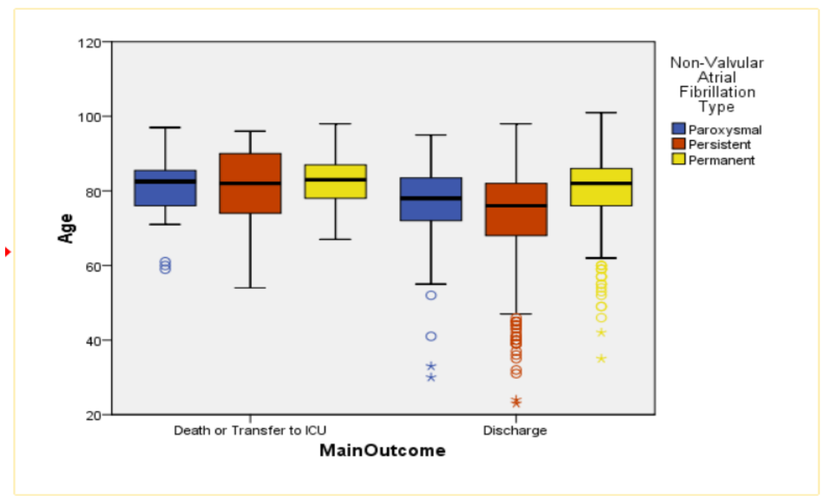
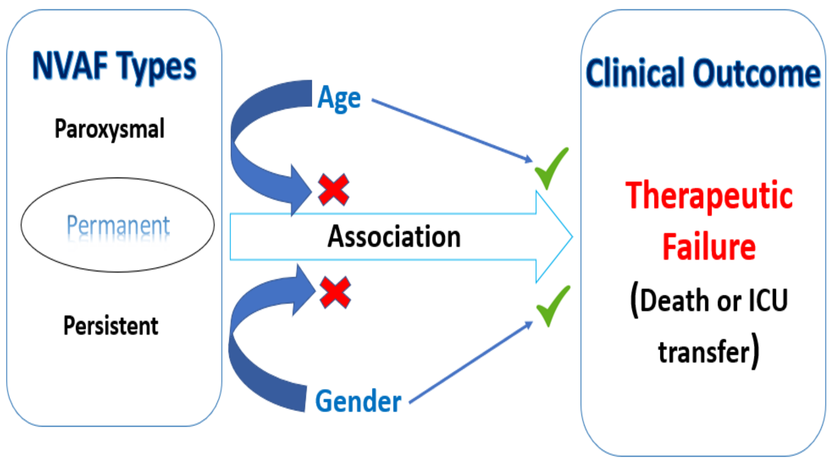


FIGURE 2: Box-plot Showing Age Distribution By Clinical Outcome And NVAF type In A Hospital-Based Cohort Of AF Patients.



References

1. Falsetti, L., Proietti, M., Zaccone, V., Guerra, F., Nitti, C., Salvi, A., . . . Silvestrini, M. J. E. J. o. C. I. (2020). Impact of atrial fibrillation in critically ill patients admitted to a stepdown unit. 50(11), e13317.
2. AFICILL Database. 2019 Dec 27;4.

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