Burden and Predictors of Atrial Fibrillation in hospitalised patients with Multiple Myeloma: 2020 National Inpatient Sample study

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BACKGROUND

- Multiple myeloma (MM) is a hematologic malignancy associated with an increased risk of cardiovascular complications, including atrial fibrillation.
- Limited data exist regarding the epidemiology, prevalence and this study provides an updated analysis of AFib prevalence, predictors, and outcomes among hospitalized MM patients

METHODS

- We performed a retrospective analysis of hospitalized MM patients, identifying AFib and related cardiovascular complications using ICD-10-CM codes.
- Demographic variables (age, sex, race), hospital characteristics (size, region, teaching status), and clinical factors (cardiovascular comorbidities) were extracted.
- Statistical analyses was used to identify predictors of AFib.

CONCLUSIONS

- AFib in hospitalized multiple myeloma (MM) patients is more common in elderly, male, and White individuals
- AFib is associated with Increased risk of in-hospital mortality, serious arrhythmias but **does not** significantly impact Length of hospital stay or Hospital charges

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RESULTS

- Patients with AFib were older (mean 74.97 vs 68.37 years) and more likely male (62.33% vs 54.76%).
- Racial distribution showed a higher proportion of White patients in the AFib group (74.24% vs 59.35%).
- AFib was more prevalent in the lowest income quartile and Medicare-insured patients (82.10% vs 65.11%).
- More AFib patients were treated in large, urban teaching hospitals with fewer elective admissions (9.88% vs 15.83%).
- AFib was associated with 67% higher odds of in-hospital mortality (OR 1.67).
- Length of stay was similar (7.51 vs 7.44 days, P=0.555), and hospital charges were slightly lower ($93,034 vs $95,950, P=0.225).
- AFib increased the odds of ventricular fibrillation (OR 3.24) and ventricular tachycardia (OR 4.93).
- AFib was not significantly associated with acute myocardial infarction (OR 1.29).

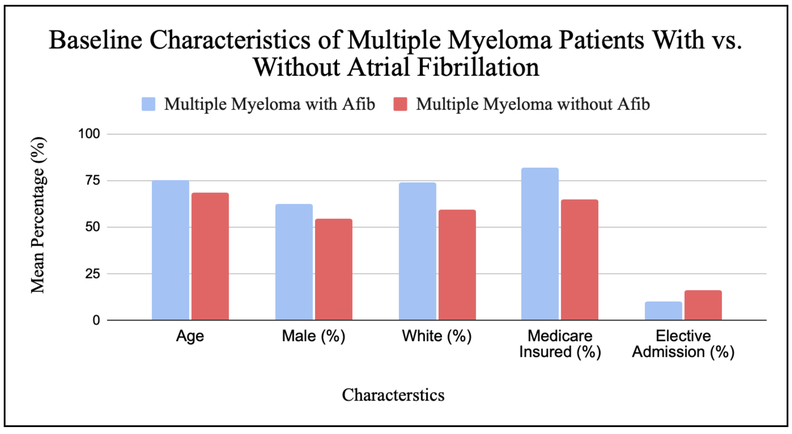


Figure 1: Baseline characteristics of patients with (blue) and without (gray) AFib. Continuous data shown as mean ± SD; categorical data as %.

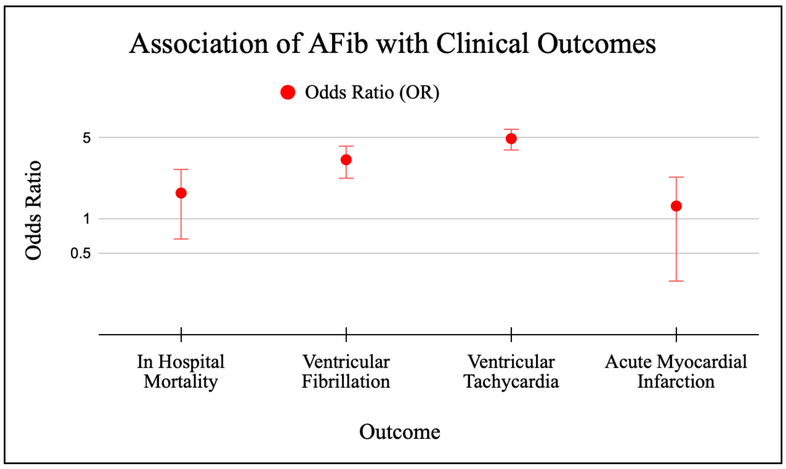


Figure 2: Odds ratios (OR) with 95% CI for clinical outcomes in patients with AFib. OR >1 indicates higher odds

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