SEASONAL VARIATION OF ACUTE PERICARDITIS AND PREDICTORS OF ADVERSE OUTCOMES IN THE UNITED STATES: AN ANALYSIS OF THE NATIONAL INPATIENT SAMPLE

Adebayo Atanda MD[1], Lily Dastmalchi MD[1], Olajide Buhari MD[2], Ariel Faiwiszeski MD[1], Tran Nguyen MD[1], Pedro Covas MD[1], Joseph Krepp MD[1]

[1] *The George Washington University School of Medicine Health Sciences, Washington, DC*

[2] *Wake Forest University School of Medicine, Winston-Salem, NC*

Heart & Vascular Institute
THE GEORGE WASHINGTON UNIVERSITY

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC

Background

- There is limited data about the seasonal variation and outcomes in patients admitted for acute pericarditis (AP) in the United States (US)
- We hypothesized that seasonal variation exists in hospital admissions for AP and secondarily sought to define predictors of in-hospital mortality

Methods

- Data from the National Inpatient Sample from 2011-2014 was used to identify patients with AP
- ICD 9 and ICD 10 codes for pericarditis were used to create a cohort and subsequently divided into seasonal groups.
- Logistic regression analyses were used to evaluate multiple outcomes

Results

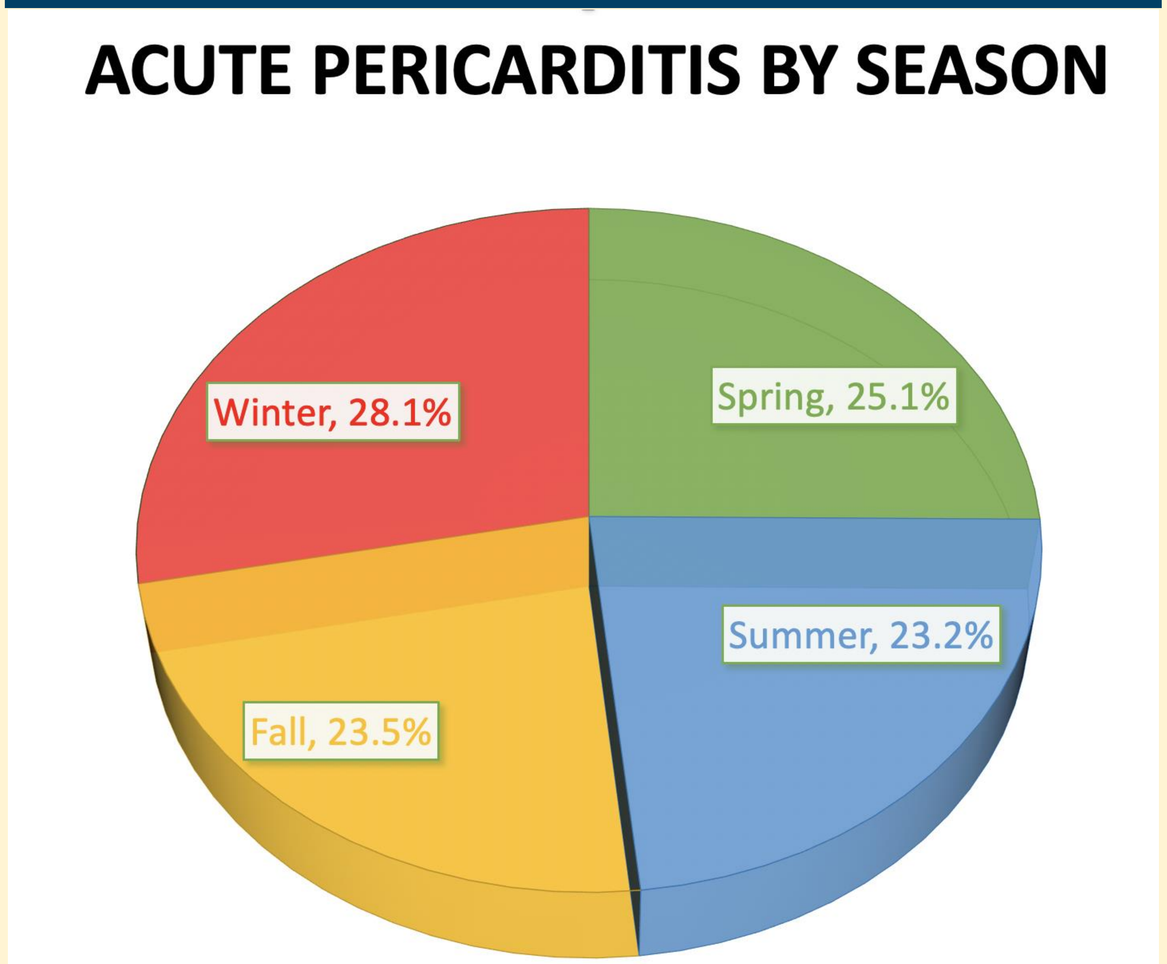

Figure 1: Demonstrating seasonal variation of pericarditis

Discussion

- 23,903 patients were identified with a diagnosis of AP
- More males than females identified (58.7% vs. 42.3%; p<0.01) identified, with a mean age of 55.2 years and mean length of stay of 6.8 days.
- AP occurred most frequently in the winter (28.1%) followed by the spring (25.1%), the fall (23.5%), and the summer (23.2%)
- Although in-hospital mortality was highest in the fall (4.6%) and lowest in the spring at (4.0%), seasonal variation was not a significant predictor of death.
- Patients with a concurrent diagnosis of congestive heart failure (CHF) had a 41% increased odds of death (OR 1.41, 95%CI 1.15-1.73 p<0.01)
- Acute kidney injury (AKI) had a nearly four-fold increased odds of death (OR 3.71 95%CI 3.11-4.39,p<0.01)

Conclusion

- This study demonstrates impact of seasonal variation of AP in the US with the highest incidence during the winter.
- Concurrent diagnoses of CHF and AKI were the strongest predictors of in-hospital mortality.

Disclosures: The mentioned authors have no relations to disclose.