Prevalence and In-Hospital Outcomes of Uremic and Dialysis Pericarditis: A United States National Study

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Prevalence and In-hospital outcomes of Uremic and Dialysis Pericarditis: A United States National Study

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Background

• In the modern dialysis era, uremic and dialysis pericarditis (UDP) are less frequently encountered in clinical practice.
• We sought to determine the secular variation and in-hospital outcomes of UDP.

Methods

• Using the U.S. Nationwide Inpatient Sample databases 2003 through 2012, we pooled a weighted sample of patients with UDP by identifying hospitalizations in patients ≥ 18 years of age, with a primary or secondary diagnoses of acute pericarditis (ICD-9 code 420.0) and renal dysfunction (acute kidney injury (AKI), end stage renal disease (ESRD), and uremia).
• Hospitalizations with a primary or secondary diagnoses for other types of pericarditis, including bacterial, fungal, protozoal, rheumatic, and viral, were excluded.
• Associated type of renal dysfunction, type of dialysis modality, pericardial procedures, and outcomes were then analyzed.

Results

• A total of 13,003 hospitalizations (mean patient age 55 ± 18 years, 41.4% female) were identified with diagnoses suggestive of UDP.
• From 2003 to 2012, the prevalence of UDP increased from 13.5 to 47.1 per 1 million hospitalizations (P_trend<0.005).
• ESRD was present in 8,852 (68.1%) of these cases, followed by AKI in 4,925 (37.9%) cases.
• A total of 9,650 (74.2%) cases received hemodialysis and 492 (3.8%) received peritoneal dialysis during the hospitalization.
• All-cause inpatient mortality was 6.4%, a decreasing trend from 17.03% in 2003 to 4.43% in 2012 (P_trend<0.005).
• Median length of stay was 7 days, and median total hospital charges were US$ 48,673.

<table>
<thead>
<tr>
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<th>2003</th>
<th>2012</th>
<th>P</th>
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<tbody>
<tr>
<td>Prevalence of UDP (per 1 million hospitalizations)</td>
<td>13.5</td>
<td>47.1</td>
<td>&lt; 0.005</td>
</tr>
<tr>
<td>All-cause inpatient mortality</td>
<td>17.03%</td>
<td>4.43%</td>
<td>&lt; 0.005</td>
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• Pericardial procedures were performed in 16.8% of cases, including pericardiocentesis (9.5%), pericardiotomy (8.6%), pericardial biopsy (2.3%), and pericardiectomy (0.7%).
• Procedure rates were similar for patients with and without ESRD.

Conclusion

• Between 2003 and 2012, the prevalence of UDP among all hospitalizations in the United States increased, while the in-hospital mortality rate decreased.
• Pericardial procedures were common in UDP patients, with almost one-sixth of the cases having a pericardial procedure.

Disclosures

• None of the authors have any relevant disclosures.