pain who are undergoing evaluation for MI.

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References


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Coprevalence of Autoantibodies to Cardiac Troponin I and T in Normal Blood Donors

To the Editor:

We recently reported the high frequency of plasma and serum samples with increased concentrations of IgG reactive to cardiac troponin I (cTnI; 12.7%) and T (9.9%) in normal blood donor cohorts. Whereas the presence of autoantibodies to cardiac troponin I (α-cTnI) has been highlighted as a potential source of false-negative cTnI immunoassay results (3), the stabilizing effect of α-cTnI on the circulating half-life of cTnI has been much less explored (4). The former may result in delayed diagnosis of acute myocardial infarction (AMI) on presentation, while the latter may require additional diagnostic testing to reconcile the cTnI measurement with clinical observations, thus prolonging the duration of care, with its attendant cost. When such discordant results are noted, additional information from related biomarkers, particularly cTnT, is often used to clarify the findings. With the high prevalence of α-cTnT (2), however, one must question the significance of a negative or positive cTnT value that contradicts that of cTnI. With that in mind, we report here the coprevalence of autoantibodies to both cardiac troponin I and T in plasma and serum samples in a normal donor cohort.

We obtained frozen plasma or serum samples from normal blood donors (n = 345), all of which had been approved by an institutional review board for research use, from the Abbott Laboratories specimen bank and thawed them at 2–8 °C before use. We analyzed the samples using direct chemiluminescent microplate assays for α-cTnI (1) and α-cTnT (2).

The normal donor population could be categorized into 4 groups based on the signal-to-low control (S/LC) response of the α-cTnI and α-cTnT (Table 1). Samples were considered pos-

1 Nonstandard abbreviations: cTn, cardiac troponin; α-cTnI, autoantibody to cTnI; AMI, acute myocardial infarction; S/LC, signal to low control.
The high coprevalence of autoantibodies to cTnT warrants caution in interpreting the significance of a negative or positive cTnT value that contradicts that of cTnl, and vice versa. One should consider that an autoantibody to antigen may have a negative (interference) or positive (stabilizing) effect on the measurement of the antigen, and that multiple autoantibody/antigen pairs may act independently.

**Table 1. Coprevalence of human IgG reactive with cTnI and cTnT in serum or plasma from normal blood donors.**

<table>
<thead>
<tr>
<th></th>
<th>Group 1 (α-cTnI+/α-cTnT−)</th>
<th>Group 2 (α-cTnI+/α-cTnT−)</th>
<th>Group 3 (α-cTnI−/α-cTnT+)</th>
<th>Group 4 (α-cTnI−/α-cTnT+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>27</td>
<td>22</td>
<td>6</td>
<td>290</td>
</tr>
<tr>
<td>Average age, years (range)</td>
<td>44 (20–64)</td>
<td>37 (19–57)</td>
<td>36 (20–55)</td>
<td>38 (18–72)</td>
</tr>
<tr>
<td>Sex ratio, M:F</td>
<td>4.2</td>
<td>1.0</td>
<td>4.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Median S/LC(_{α-cTnI}) (range)</td>
<td>10.9 (7.1–95.6)</td>
<td>1.2 (0.5–6.7)</td>
<td>15.3 (7.5–41.6)</td>
<td>1.3 (0.1–6.7)</td>
</tr>
<tr>
<td>Median S/LC(_{α-cTnT}) (range)</td>
<td>2.0 (0.5–4.5)</td>
<td>8.9 (5.4–31.4)</td>
<td>9.3 (6.8–44.7)</td>
<td>1.2 (0.1–5.1)</td>
</tr>
</tbody>
</table>

\* α-cTnI− was defined as S/LC > 6.7; α-cTnT+ was defined as S/LC > 5.3.

**References**


**Letters to the Editor**

The recent article in *Clinical Chemistry* by Katzmann et al. (1) on screening panels to detect monoclonal gammopathies provided important information on the use of the free light chain (FLC)\(^1\) assay, and we commend the authors for this report. Apart from the selection bias inherent in the exclusion of 90% of cases of monoclonal gammopathy of uncertain significance (MGUS), we would like to address some aspects that, in our opinion, may enhance understanding of the role of various diagnostic strategies to detect mono-

\(^1\) Nonstandard abbreviations: FLC, free light chains; MGUS, monoclonal gammopathy of uncertain significance; IFE, immunofixation electrophoresis; PEL, protein electrophoresis.

**Screening Panels for Detection of Monoclonal Gammopathies: Confidence Intervals**

*To the Editor:*