Reproducibility of salivary pepsin: clinic versus home

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OBJECTIVES

Pepsin immunoassay of saliva samples is a potential objective test for reflux and extra-esophageal reflux (EER). This study aims to assess the reproducibility of pepsin samples in a clinical cohort study.

METHODS

Data from a prospective cohort of sleep disorders and non-sleep disorders adult patients from a sleep disorders clinic was collected from October 2011 until February 2012. Three saliva samples were obtained from each subject following a standardized protocol as shown in Figure 1. Results

From 81 subjects, results from the first samples showed the prevalence of pepsin positive (+) was 24%. Of 46 subjects who returned the home collected sample, only 2 (0.04%) of the 2nd samples were positive and none of the 3rd samples were positive. Thirty-nine percent of the subjects had elevated Reflux Symptom Index (RSI) but the correlation with pepsin (+) were not significant.

RESULTS

<table>
<thead>
<tr>
<th>Sample</th>
<th>Sample A (n=81)</th>
<th>Sample B (n=46)</th>
<th>Sample C (n=46)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pepsin (+)</td>
<td>20 (24%)</td>
<td>2 (0.04%)</td>
<td>0</td>
</tr>
<tr>
<td>Pepsin (-)</td>
<td>61</td>
<td>44</td>
<td>46</td>
</tr>
</tbody>
</table>

We found no correlation of RSI and pepsin (+) similar to Wang et al who reported no relationship between pepsin levels and RSI in cases of obstructive sleep apnea (OSA).

CONCLUSION

Our study was unable to produce consistent results of pepsin assay tests in a non-laryngology clinical setting. Salivary pepsin assay is a conceptually promising non-invasive test for EER; however the timing and logistics of sample collection in order to be a feasible clinical test may need further studies and adjustments.

REFERENCES


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