Delayed mammalian meat-induced anaphylaxis
due to galactose-a,1,3-galactose

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OBJECTIVES

1. To recognize delayed anaphylaxis in relation to food
2. To identify alpha-gal sensitization
3. To find out associated factors: tick bites, gelatin, blood group antigens

This particular story began here: an IgE-anaphylactic reaction with no previous exposure to the drug!
A relationship with food was soon established: we are talking about meat from mammals.

**Clinical article**

**Delayed anaphylaxis, angioedema, or urticaria after consumption of red meat in patients with IgE antibodies specific for galactose-1,3-galactose**

Rachel A. Jurne, MD, PhD, David R. Bock, MD, PhD, Ines Moulin, MD, PhD, Jonathan Thomas, MD, PhD, Lucja Szewczyk, MD, PhD, Brennan D. Lewis, MD, PhD, and Theodore A. Ellis, MD, PhD, PA-C. Pathology of red meat-induced IgE-mediated anaphylaxis.

**Key words:** Anaphylaxis, urticaria, food allergy, galactose-1,3-galactose, cross-reactive carbohydrate determinant

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An this allergen was even found in animals we don’t usually eat.

**Clinical article**

**The carbohydrate galactose-1,3-galactose is a major IgE-binding epitope on cat IgA**

To the Editor: Cross-reactive carbohydrate determinants are widely occurring IgE epitopes. Glycan-related IgE reactivity has been demonstrated.

March 2013

We have reported some patients from Spain.

**Table 1**

<table>
<thead>
<tr>
<th>Patient no.</th>
<th>Sex</th>
<th>Age</th>
<th>Clinical symptoms</th>
<th>Total IgE</th>
<th>IgE in mmol/l</th>
<th>IgE in IgA (A/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>Definitive anaphylaxis</td>
<td>185,2</td>
<td>6.45</td>
<td>0.16</td>
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<tr>
<td>2</td>
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<td>124,3</td>
<td>5.93</td>
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</tr>
<tr>
<td>3</td>
<td>M</td>
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<td>Definitive anaphylaxis</td>
<td>145,8</td>
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<td>0.16</td>
</tr>
<tr>
<td>4</td>
<td>F</td>
<td>30</td>
<td>Definitive anaphylaxis</td>
<td>165,9</td>
<td>7.05</td>
<td>0.20</td>
</tr>
</tbody>
</table>

**Table 2**

<table>
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<th>Age</th>
<th>Clinical symptoms</th>
<th>Total IgE</th>
<th>IgE in mmol/l</th>
<th>IgE in IgA (A/l)</th>
</tr>
</thead>
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<td>6.53</td>
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</tr>
<tr>
<td>6</td>
<td>F</td>
<td>28</td>
<td>Definitive anaphylaxis</td>
<td>135,7</td>
<td>5.84</td>
<td>0.06</td>
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<tr>
<td>7</td>
<td>M</td>
<td>25</td>
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<td>155,9</td>
<td>6.45</td>
<td>0.16</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>30</td>
<td>Definitive anaphylaxis</td>
<td>175,8</td>
<td>7.05</td>
<td>0.20</td>
</tr>
</tbody>
</table>

*Note:* We report these patients as we are interested in their reactions.

And, there are some intriguing questions:

1. What happens with ticks? Why should we ask the following question: “Have you ever been bitten by a tick?”

2. Is there any problem with meat-derived gelatin? If so, should we prevent patients from being exposed to intravenous or even oral gelatin?

3. What happens with blood group B?

IgE Production to α-Gal Is Accompanied by Elevated Levels of Specific IgG1 Antibodies and Low Amounts of IgE to Blood Group B

Are blood group B patients protected against alpha-Gal sensitization?

WHO KNOWS?