Next in the line of key historical articles of scientific impact in the medical literature is the paper on “Ferret Allergy” by Rosa Codina, PhD, Affiliate Associate Professor of Medicine, Division of Allergy and Immunology, Department of Internal Medicine.

From Rosa Codina, PhD:

This week’s scientific article entitled “Ferret Allergy”, published in the Journal of Allergy and Clinical Immunology in 2001, is a case report that describes for the first time allergy to an uncommon household pet. Rosa Codina, PhD, a faculty member, conducted the laboratory investigations with the assistance of Cristina Jaen, a visitor student at that time and now a PhD scientist; Daniel Reichmuth, MD, a fellow, and now a board-certified allergist; and Richard F. Lockey, MD, Director, Division of Allergy and Immunology, Department of Internal Medicine. The patient was evaluated and all in vivo tests were performed. This study created a precedent and clinicians are now aware that their patients can house uncommon pets and become sensitized to them. Case reports of allergy to uncommon pets have become prevalent during the past years.

With warm regards,

Richard F. Lockey, MD
Distinguished University Health Professor
Joy McCann Culverhouse Chair in Allergy
and Immunology
Professor of Medicine, Pediatrics & Public Health
Director, Division of Allergy and Immunology
Department of Internal Medicine

Jolan Walter, MD, PhD
Robert A. Good Endowed Chair in Immunology
Associate Professor of Pediatrics and Medicine
Chief, Division of Allergy and Immunology
Department of Pediatrics
The subject’s IgE bound to 4 protein bands (molecular weights [MWs] of 103, 81, 28.8, and 14.8 kg/mol) in the male and female urine and to no bands in the hair Western blots. The IgG-depleted serum bound to 2 additional bands (MWs of 213 and 41.2 kg/mol) in the urine and to 2 bands (MWs of 81 and 10.1 kg/mol) in the hair Western blots.

This subject’s acute asthma began minutes after he washed his ferret, the time frame expected for an immediate IgE reaction. However, an additive effect of outdoor allergens triggering life-threatening asthma exacerbation cannot be excluded.

In a separate case report, a subject allergic to mink, a mammal from the same family as ferret (Mustelidae), had positive skin tests and negative IgE results to the suspected allergens. In this study the specific IgG to ferret interfered with the specific IgE measurement. Therefore it is hypothesized that the mink-allergic subject’s serum contained similar competing antibodies.

This study demonstrates high-MW allergens in ferret urine and hair. High-MW allergens have also been described in other mammals. Ferret allergens may sensitize and cause severe asthma in subjects in contact with them.

Rosa Codina, PhD
Daniel Reichmuth, MD
Richard F. Lockey, MD
Cristina Juan, BS
Division of Allergy and Clinical Immunology
University of South Florida College of Medicine
Tampa, FL 33612-4745

Supported by the Division of Allergy and Immunology endowed Joy McCann Culverhouse Airway Disease Research Center, Department of Internal Medicine, College of Medicine; and the James A. Haley VA Hospital, Tampa, Fla.

We thank Dr Lucy Bartlett for her assistance with this study.

REFERENCES

1/8/114704

TABLE I. Specific IgE and IgG to ferret hair and urine

<table>
<thead>
<tr>
<th>Serum</th>
<th>Hair</th>
<th>Male urine</th>
<th>Female urine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IgE (%TCB)</td>
<td>IgG (OD)</td>
<td>IgE (%TCB)</td>
</tr>
<tr>
<td>Patient (whole)</td>
<td>1.45</td>
<td>1.471</td>
<td>5.8</td>
</tr>
<tr>
<td>Patient (IgG depleted)</td>
<td>7.1</td>
<td>0</td>
<td>13.6</td>
</tr>
<tr>
<td>Nonatopic controls (mean ± SD)</td>
<td>0.2 ± 0</td>
<td>0.06 ± 0.048</td>
<td>0.18 ± 0.02</td>
</tr>
<tr>
<td>Atopic controls (mean ± SD)</td>
<td>0.23 ± 0.05</td>
<td>0.067 ± 0.059</td>
<td>0.23 ± 0.05</td>
</tr>
</tbody>
</table>

%TCB, Percentage of total counts bound; OD, optical density.