Bacteriological Stool Examinations

I was surprised to see that this article makes almost no mention of the IgG4 mediated food intolerances. These are extremely common and easily treated by abstinence. Further, quantitative bacteriological stool testing is not mentioned. This is a cost effective and non-invasive way to gather comprehensive information on intestinal flora, digestive breakdown products (fats and sugars), and inflammatory markers (fecal calprotectin/alpha-1 antitrypsin). This examination is easily performed even in children. Measuring bacterial activity in breaking down fructose and sorbitol in feces does not provide any information about sugar intolerances. Especially in children, it is just as easy to undertake a mild provocation test with apple juice or milk, given on an empty stomach. Stools could also be examined for *Helicobacter*. This avoids a breath test (which takes 3 hours and necessitates abstinence) and gastroscopy.

Extended stool tests such as the ratio of bacteroides to firmicutes provide concrete indications of different idiosyncrasies in the digestive process and energy metabolism.

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Conflict of interest statement

The author has received honoraria for speaking from Takeda and Pfizer. The author has conducted observational studies on behalf of Alcon, Pfizer, and Novartis

In Reply:

We are pleased to agree with the comments by Prof. Worm and colleagues. However, the cited guidelines make recommendations on the basis of already concluded differential diagnostic tests; their remit therefore does not extend beyond IgE mediated reactions. A differential diagnostic work-up of non-IgE mediated, atypical, or local allergic reactions (1) is lacking; the same is true for a work-up of etiologically unclear inflammatory processes or other rare disease causes (such as eosinophilic disorders, vasculitides). We were asked to present in our article our comprehensive interdisciplinary diagnostic approach and standard, which goes way beyond merely IgE mediated mechanisms of allergic reactions. Hence the parameters listed in *Figure 3* are used as optional differential diagnostic parameters preceding oral provocation and without final or conclusive confirmation of the pathology.

As for other immunological reactions to antigens, non-IgE mediated allergy types have also been described for food allergies, but these are reportedly rarer than IgE mediated reactive mechanisms (1). It is therefore necessary in an article on differential

diagnostic approaches to point out that other allergological mechanisms exist in addition to IgE mediated reactions.

Because of the low incidence of systemic mastocytosis and its course, which often does not require treatment, larger studies are lacking, and the therapeutic recommendations are limited to case series and individual case reports.

As described in the guidelines, systemic corticosteroids can be beneficial in pronounced mastocytosis (2). Leukotriene receptor antagonists and ciclosporins offer further therapeutic approaches if the disease takes a severe course.

We thank Dr. Reese et al. for their interest in our article. In actual fact, the data on the prevalence of non-immunological food intolerances as reported in the literature differ widely, depending on which patient cohort, organ system, etc was examined and which specialty presided over the diagnostic tests. Further, we were asked to present the differential diagnostic approaches for food intolerances categorized into structural and functional causes, not according to the structure used by the European Academy of Allergy and Clinical Immunology (EAACI).

The reported mean overall prevalence of non-immunological food intolerances of 15–20% relates to all currently known intolerance mechanisms. With regard to intolerances to food additives, we did not report any percentages (in the literature, this is reported as less than 0.5%). For salicylate intolerance, the prevalence was 0.6–1.2% (3). As early as in 1996, Czech et al. identified food additives and non-steroidal anti-inflammatories as triggers of pseudo-allergic reactions. Especially the results from 7 studies (1980–1996) reported by Niec et al. (4) found in patients with irritable bowel syndrome that, in addition to milk, egg, and wheat, foods with a high salicylate content induced symptoms most often.

We thank Dr. Mrowietz-Ruckstuhl for her comments. Her observations regarding changes in the intestinal and fecal flora in persons with food intolerances and allergies are consistent with the findings reported in the literature (5). Measuring IgG titers against foods reflects the permeability of the gut; the IgG titer counts as a marker of exposure without pathological value, and rising IgG titers may be indicative of a developing tolerance. Their relevance is questionable; these tests should not be used as the basis for devising a diet (risk of iatrogenic hypoalimentation).

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Conflict of interest statement

The authors declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.