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Pediatric food allergy prevention, “Much ado about nothing”?

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To the editor

In the early eighties, when I was a young paediatrician, I usually spent my afternoons with Dr. Alvaro Cimaglia who was, at the time, the head of a paediatric hospital, in Naples.

Dr Cimaglia was a clever and serious paediatrician who loved his job and working with children. He taught me numerous practical aspects of paediatrics, including the introduction of solid food in the infancy. Thanks to his lessons, I started baby weaning at the beginning of the fifth month of life. Wheat, rice, vegetables soup, parmesan cheese, olive oil, apple, pear, were the first foods to be introduced in the diet. In the next days, lamb, calf, chicken, turkey followed. At the beginning of the sixth month, fish (sole or cod) and boiled egg yolk were added. At ten months of age, the egg white was finally introduced. This was Dr Cimaglia's (and mine) way of weaning our patients. This was equally applied for both normal babies and at-atopic-risk babies (i.e. those with a family history of atopy): same foods, same timing.

Since the late nineties it seemed reasonable to delay the introduction of many foods to the second year of life to try and reduce food allergy in the infancy (1). This strategy was

believed to reduce the risk of food sensitizations in children. Dr Cimaglia, who was eighty years-old, had a medical weekly newspaper translated into Italian. In these occasions, we often discussed about the new paediatric food allergy prevention trends. I introduced him to the new concepts, but he didn't change his mind and kept doing what he used to do. “Tolerance is a specific immunological strategy” he said. “How is it possible to tolerate an allergen without having met it?”

Things change. “New concepts” were being proposed by the UK, Israel and Australia: some studies suggested that a “window” period around the fifth month could have been the best choice for weaning (2), while others indicated that the early contact with peanuts could have a protective effect for the development of peanut allergy. Dr Cimaglia was still working hard everyday, until late, in his office, filled with newborns. Even if he was getting older, he could not stop working. I met him at a paediatric allergy congress in Naples, when he asked me if he had to modify his behaviours, at the light of the new studies. I reassured him he was right, as he had always been.

These last years have witnessed many important trials published on this topic: the GINI study (3), the LEAP study (4) and the EAT study (5). The questions addressed were i)

whether a partial or extensive hydrolyzed cow milk formula could do better than a normal formula in cow milk allergy prevention, and ii) whether the early introduction of peanuts in at-risk infants or several foods in a normal population may, at least partially, prevent the appearance of food allergies.

Bottom line, the answer to these questions is *No*. Methodologists and evidence-based medicine experts may find the specific reasons why significant results have not been reached. The only appreciable result is that early peanut introduction may have a positive impact in highly selected infants with a very severe atopic status (not many indeed, in real life) for what concerns the risk of peanut allergy. Even if this result may be considered extremely relevant for United States paediatricians in their clinical practice, it is much less so in countries where peanuts are not likely to be administered in the first years of life.

As of today, paediatricians may relax and act as they have always done: the right age to start solid food introduction in infants is the fifth month, no matter whether they are at risk of atopy or not.

Dr Cimaglia has unfortunately passed away few years ago. He would have probably asked: “How can you assume that thousands of infants, taken together just because they have an allergic parent, may represent a valuable population? Children are so different from each other! Wouldn't it be better to study a sample of few, well defined, well characterized infants?”

I have no answer. I don't know. We'll see. But I'm sure that Dr Cimaglia, wherever he is now, is smiling.

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