

Reply

To the Editor:

A basic principle of juridical law states that nobody should be considered guilty until proven otherwise. By analogy, in the scientific court of law, gastric suction¹ should be considered innocent until proven guilty by irrefutable scientific evidence. In our editorial,² we did not mean to play the role of a prosecutor by attempting to prove the study wrong and pointing out its shortcomings. Indeed, we consider the study results interesting, provocative, and certainly a valuable starting point for future research. But proving that an event is responsible for an outcome should be strictly based on the rules of causality. Although we agree that biologic plausibility may vary with the progress of knowledge, changes in knowledge should be based on high-quality data. In the court of evidence-based medicine, retrospective studies have a lower standing in the hierarchy.

A study reviewing the quality of perinatal charts and the Birth Medical Registry of Sweden,³ by staff members of the Swedish National Board of Health and Social Welfare, cautions not to imply "associations between different diagnoses or diagnoses and different outcomes" due to concerns on the validity of diagnoses. The study criticized as "poor" the documentation on many items including respiratory distress, which was quoted by Dr Anand et al¹ as the most common event associated with gastric suction. Poor quality of documentation of cardiac massage, intubation, ventilation, time to spontaneous breathing, and duration of hospital stay was also noted.

The authors base their case on the law of temporal relationship that would supposedly prove the association of gastric suction with the outcome. They do not seem to take into account the fact that respiratory distress frequently preceded the gastric suction. Therefore, the argument could be made that respiratory distress and the resulting stress is guilty of the outcome, and if true, gastric suction would constitute a mere confounding factor. The authors did not provide any reference to validate the asphyxia score that they used to disregard the association between respiratory distress and functional bowel disorders (FBDs). Moreover, the Swedish quality study found poor documentation on other events that would have preceded the gastric suction, such as method of delivery, which is known to affect fetal cortisol levels and stress.⁴ Finally, the Swedish quality study also found the hospitals of birth to have a wide and unexplainable variability in diagnoses.

Inaccurate reports and misdiagnoses are common sources of bias in retrospective studies and may easily modify the results and the conclusions of an investigation with a limited number of cases and controls. A study that attempts to arrive at a guilty verdict should be able to prove that the evidence against gastric suction is not just circumstantial, and we believe the authors have failed to do so. We suggest this case to be a mistrial and we recommend a new prospective study with different methodology and impeccable documentation to prove gastric suction as guilty or innocent as charged.

Until that time, gastric suction should continue to be performed when medically justified. Now, the verdict goes to the readers.

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Diagnostic value of food specific IgE antibodies in children with immediate digestive symptoms to cow's milk

To the Editor:

de Boissieu reported good sensitivity (79%) and specificity (91%) of patch test in detecting cow's-milk allergy with digestive delayed symptoms.¹

We report our experience with immediate digestive reactions to cow's milk.²

In a prospective study, we enrolled 86 patients (46 males, aged 6 months to 14 years) with a medical history of cow's-milk intolerance and exclusive immediate gastrointestinal symptoms (vomiting and, in patients aged >3.5 years, diarrhea and/or abdominal pain).

Prick test (positive when eliciting a mean wheal diameter ≥ 3 mm)³ and radioallergosorbent test (RAST) (by C.A.R.L.A and judged positive if ≥ 1 IU/mL) for casein, β -lactoglobulin, and lattoalbumin were performed in every patient.

The subjects with diarrhea and/or abdominal pain underwent lactose breath testing.

A milk-free diet was started in the patients with positive prick or RAST, and an open challenge^{4,5} was performed after one month; 71 patients had a positive response to challenge (group A) and 15 were negative (group B). In group A, 75% were positive to RAST (58% only to RAST); 21% were positive to prick test (4% only to prick). In group B, 6% were positive to RAST and 6% to prick, without overlap between the two tests. We found good sensitivity of the RAST (75%), low sensitivity of the prick test (21%), and a similar specificity of the two tests (94%). The combination of RAST and prick test reached a sensitivity of 79%.

Therefore in patients with cow's-milk allergy and delayed digestive symptoms, the most sensitive test seemed to be the atopy patch test,¹ but in patients with immediate digestive symptoms, the RAST seems more sensitive than the prick test.

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Reply

To the Editor:

Following a report of the role of the atopy patch test (APT) in the detection of digestive manifestations of cow's-milk allergy (CMA), Castro et al¹ emphasize the existence of immediate digestive reactions and the role of a biologic diagnosis based on cow's milk-specific immunoglobulin (Ig)E, with a 75% positivity and, to a lesser extent of cow's-milk prick tests, only a 21% positivity. The sensitivity of both tests combined was 79%; no APT was done in the study and authors suggest not overlooking RAST and prick testing when investigating CMA. In the interim, we performed a prospective evaluation of 73 infants, 42 males, mean (+SD) age 18 + 23 months, with chronic digestive symptoms suggesting CMA (gastroesophageal reflux = 38, diarrhea = 38,

colic = 27, constipation = 4, difficult feeding = 6). On the basis of the criteria mentioned earlier,² CMA was shown in 54 children, with APTs positive in 35 (65%) versus 1 in the 19 non-CMA children (5%, $P < .001$). Among CMA patients, a positive APT was seen in 17/33 (52%) patients <1 year of age and in 17 of 20 (85%) >1 year. The APT was positive together with positive cow's milk-specific IgE (<0.6 KUI/L) in 3 of the CMA group, whereas skin prick tests with native cow's milk were all negative. We therefore confirm a good sensitivity of APTs during delayed manifestations of CMA, slightly lower than that reported before,² probably because of a greater number of patients <1 year of age. This sensitivity is not far different from that of combined radioallergosorbent test and prick tests during immediate manifestations as calculated by Castro et al.¹ Both types of testing must therefore be considered in the presence of suggested CMA, and the clinical history carefully analyzed before deciding which type of testing should be used. In addition, in patients with CMA and atopic dermatitis, combining skin prick and patch testing enhances the identification of food allergy, 25% of patients with immediate reaction during the oral provocation test exhibiting a positive APT.³ The same kind of tests overlapping might be observed in CMA with digestive symptoms, so that APTs could be proposed systematically if the skin prick test is negative. Briefly, in CMA with immediate allergic reactions, prick and IgE are the first tests to be done but combining prick and patch tests is able to enhance the diagnosis of CMA, even in the presence of immediate digestive symptoms, as demonstrated in patients with atopic dermatitis and CMA.

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