Atopy patch test en allergie alimentaire : contre

E. Bidat

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Pas de conflits d’intérêts sur le sujet
La controverse

• Les Atopy patch tests aux aliments ont été pratiqués dans l’enquête diagnostique d’une allergie alimentaire (non IgE médiée ...) par :
  – Les gastro pédiatres
  – Les pédiatres
  – Certains allergologues
  – Les patients !

• Ont-ils encore une place ?
Il n’y a pas de controverse !

- Sampson HA,
- Aceves S,
- Bernstein D,
- Blessing-Moore J,
- Bock SA,
- James J,
- Jones S,
- Lang D,
- Khan D,
- Nadeau K,
- Nicklas R,
- Nowak-Wegrzyn A,
- Oppenheimer J,
- Perry TT,
- Portnoy J,
- Randolph C,
- Schuller D,
- Sicherer SH,
- Simon RA,
- Spector S,
- Tilles SA,
- Tilles SA,
- Vickery BP,
- Wallace D,
- Wood R.

Food allergy: A practice parameter update—2014

Hugh A. Sampson, MD, Seema Aceves, MD, PhD, S. Allan Bock, MD, John James, MD, Stacie Jones, MD, David Lang, MD, Kari Nadeau, MD, PhD, Anna Nowak-Wegrzyn, MD, John Oppenheimer, MD, Tamara T. Perry, MD, Christopher Randolph, MD, Scott H. Sicherer, MD, Ronald A. Simon, MD, Brian P. Vickery, MD, and Robert Wood, MD

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This parameter was developed by the Joint Task Force on Practice Parameters, representing the American Academy of Allergy, Asthma & Immunology (AAAAI); the American College of Allergy, Asthma & Immunology (ACAAI); and the Joint Council of Allergy, Asthma & Immunology (JCAAI). The AAAAI and the ACAAI have jointly accepted responsibility for establishing “Food Allergy: A practice parameter update—2014.” This is a complete and comprehensive document at the current time. The medical environment is a changing one, and not all recommendations will be appropriate for all patients.

Because this document incorporated the efforts of many participants, no single individual, including those who served on the Joint Task Force, is authorized to provide an official AAAAI or ACAAI interpretation of these practice parameters. Any request for information about or an interpretation of these practice parameters by the AAAAI or ACAAI should be directed to the Executive Offices of the AAAAI, ACAAI, and JCAAI. These parameters are not designed for use by pharmaceutical companies in drug promotion. (J Allergy Clin Immunol 2014;134:1016-25.)
Food allergy : A practice parameter update-2014, Summary statement 35 et 56

• Les APT ne sont pas recommandés dans le diagnostic habituel de l’allergie alimentaire
• Les APT manquent de standardisation, les études antérieures donnent des résultats variables pour la sensibilité et spécificité.
• Ils peuvent être utiles pour orienter sur les aliments en cause dans l’œsophagite à éosinophile (OE) en association prick et IgE ... mais les APT n’ont pas été standardisés et validés dans l’OE

JACI 2014;134:1016-25
1996 : Les patchs tests, un espoir pour le diagnostic d’eczéma et APLV (réactions retardées)

Combined skin prick and patch testing enhances identification of food allergy in infants with atopic dermatitis

Erika Isolauri, MD, and Kristiina Turjanmaa, MD  Tampere, Finland

Background: Early recognition of dietary allergies in infants with atopic dermatitis is essential for avoidance of unnecessary elimination diets, amelioration of the skin disease, and secondary prevention of the development of multiple food allergies. Simple and accurate methods of identifying provocative foods are urgently needed.

Methods: The usefulness of skin prick and patch tests as indicators of cow milk allergy was evaluated in 183 patients ranging in age from 2 to 36 months with double-blind, placebo-controlled (n = 118) or open (n = 65) cow milk challenges.

Results: The oral cow milk challenges were interpreted as positive in 54% of both challenge types. Positive challenge rapidly elicited pruritus, urticaria, and/or exanthema in 49% of cases and delayed-onset eczematous lesions in 51%. The skin prick and patch tests gave markedly discrepant results; prick tests were positive in 67% of the cases with acute-onset reactions to milk challenge, whereas patch tests tended to be negative. Patch tests were positive in 89% of those with delayed-onset reactions, although prick tests were frequently negative.

Conclusions: The observations indicate that IgE and T cell-mediated responses to cow milk can be distinguished in atopic dermatitis. Parallel skin testing with combined prick and patch tests can significantly enhance the accuracy in diagnosis of specific dietary allergies in patients with atopic dermatitis. (J ALLERGY CLIN IMMUNOL 1996;97:9-15.)
2005 : A pilot study of the usefulness and safety of a ready-to-use atopy patch test (Diallertest) versus a comparator (Finn Chamber) during cow's milk allergy in children.

- OBJECTIVE: A ready-to-use atopy patch test (APT), the Diallertest, was compared with another APT device, the Finn Chamber, in pediatric cow's milk allergy.

- METHODS: This prospective study involved 49 children (34.3 +/- 17 [mean +/- SD] months of age), with cow's milk allergy manifested by atopic dermatitis (10.2%), digestive manifestations (40.8%), or both (49%). All children underwent both APT techniques, with a reading 72 hours after application, followed by a milk elimination diet for 4 to 6 weeks and open cow's milk challenge.

- RESULTS: A positive result was seen in 22 (44.8%) versus 13 (26.5%) patients with the ready-to-use and the comparator APTs, respectively. No side effects were recorded. Both techniques were concordant in 67.3% of patients. Of the total 41 open cow's milk challenges, 60.9% had positive results, with 8 patients lost to follow-up. The performances of the ready-to-use and comparator APTs were as follows: sensitivity, 76% (95% CI, 59.2% to 92.7%) versus 44% (95% CI, 24.5% to 63.4%; P = .02); specificity, 93.8% (95% CI, 81.9% to 100%) versus 93.8% (95% CI, 81.9% to 100%); positive predictive value, 95% (95% CI, 85.4% to 100%; 1 false-positive result) versus 91.7% (95% CI, 76% to 100%; 1 false-positive result); negative predictive value, 71.4% (95% CI, 52% to 90.7%; 6 false-negative results) versus 51.7% (95% CI, 33.5% to 69.8%; 14 false-negative results); and test accuracy, 82.9% (95% CI, 71.3% to 94.5%) versus 63.4% (95% CI, 48.6% to 78.1%; P = .05).

- CONCLUSION: The ready-to-use APT exhibited a good sensitivity and specificity, with no side effects.

2006 : les patch tests (APT) sont inutiles

- 437 enfants (428 TPO LV) suspects d’ allergies alimentaire (principalement eczéma)
- Les ATP ont une grand spécificité ... mais faible sensibilité
- Couplés aux prick et IgE les APT rendent inutiles le TPO entre 0,5 et 14% (VP 99%)
- Les APT demandent :
  - beaucoup de temps
  - un évaluateur hautement expérimenté
- En pratique clinique les APT apportent peu ...

2008-2009 : les patch tests (APT) aux aliments natifs ne sont pas reproductibles

- Absence de reproductibilité le même jour ¹
- Absence de reproductibilité dans le temps ²
  - 118 enfants , 4 aliments natifs
  - APT à J 7, J14, J21

2012 : ATOPY PATCH TESTS

• Tests, such as atopy patch tests, have not been validated, and their usefulness is uncertain.

• However, the approach to diagnosis can vary depending on the specific condition. For eosinophilic esophagitis, SPTs, sIgE tests, and atopy patch tests might be helpful in identifying foods associated with the condition, but these tests alone might not be sufficient to confirm a diagnosis, and endoscopy might be required.

2014 : Faut-il être aussi sévère avec les APT ?

<table>
<thead>
<tr>
<th>Lait de vache</th>
<th>sensibilité</th>
<th>Prick</th>
<th>IgE</th>
<th>APT</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>88%</td>
<td>87%</td>
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<tr>
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<td>(76-94)</td>
<td>(75-94)</td>
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<table>
<thead>
<tr>
<th>spécificité</th>
<th>68%</th>
<th>48%</th>
<th>88%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(56-71)</td>
<td>(36-59)</td>
<td>(76-95)</td>
</tr>
</tbody>
</table>

Littérature favorable aux APT depuis 2014 ?

• « In contrast to commercial extracts, APT with lyophilized allergen extracts is reliable, safe, and may be useful for the diagnosis of suspected food allergy-related GI symptoms in children. OFC is still needed in most of the cases ».  
• … 41 open OFC in 39 patients (+ challenges 30)

Boonyaviwat O et al. Role of atopy patch test for diagnosis of food allergy-related gastrointestinal symptoms in children. PAI 2015;26:737-41
Réactions adverse mécanisme immunologique

**IgE médialée (histoire)**
- Histoire +++
- Prick
- IgE

**Non IgE médialée (histoire)**
- Eczéma œsophagite à éosinophiles : Oui
- Eczéma œsophagite à éosinophiles : Non

D’après Sicherer S, Sampson H, JACI 2014;133:291-307

Tout concorde : Diagnostic fait

Discordance clinique, prick, IgE : TPO

Prick, IgE ATP controversés
- Elimination
- Réintroduction

Élimination réintroduction

Réévaluation régulière fonction : pathologie, allergène, histoire, âge
Atopy patch test en allergie alimentaire : contre

• Les APT n’ont pas de place dans l’enquête diagnostique en allergie alimentaire.

• Avant de les utiliser il faudra :
  – standardiser
  – étudier la reproductibilité.

• Puis il faudra valider leur utilité :
  – dans des situations cliniques bien définies,
  – avec un comme critère de référence le TPODA.