

#AAD2019

*Highlights*  
**AEDV**

IN 77<sup>TH</sup> AAD CONGRESS

1-5 MARCH 2019

★ WASHINGTON ★

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**Immune mediated dermatosis:  
Contact dermatitis. Atopic dermatitis  
Dra. María Antonia Pastor**

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# PATCH TESTING PATIENTS WITH ATOPIC DERMATITIS

#AAD2019



- **ACD is a common clinical problem in AD** (positive patch tests in 1/3 AD)
- Barrier disruption increased transcutaneous absorption of irritants and allergens
- chronic topical application of emollients and treatments (cumulative exposure)
- Potential shared immune pathogenic pathways (Th1, Th2, Th9 and Th17)
- bacterial colonization (enhanced contact sensitization)
  
- **Most common allergens in personal care products, emollients and topical medications.**
  - Amerchol L 101 : + freq
  - Formaldehyde releasers: most common preservatives
  - CAPB the most common surfactant

# PATCH TESTS ON ATOPIC DERMATITIS PATIENTS



¿When? (Multidisciplinary consensus guidelines)

- **Adolescent or adult onset** AD even when flexural lesions present
- Atypical lesional **distribution** (Initially localized, eyelids, head and neck, hands and feet)
- **Refractory** (persistent allergenic trigger)
- **Worsening** with treatment
- **Prior to systemic** (reversible options)
- Prominent **nummular** eczema (rule out systemic contact dermatitis) (Silverberg)
- Patch testing while on dupilumab if **persistent localized dermatitis refractory to dupilumab** (patients with generalized AD that clear completely except for a localized area)

# CHALLENGES IN PATCH TESTING

- **Active dermatitis:**
  - Not to patch test (angry back).
  - Patch test somewhere else active or treat with topical CS, phototherapy, oral CS, or steroid sparing agents.
  - The underlying AD should be **well controlled** <10% BSA >1 month (lower rate of false negatives)
- **Angry back** (excited skin syndrome) Options:
  - oral antihistamines
  - late patch reading
  - treat and retest 6-8 weeks afterwards and potentially with greater space between

# CHALLENGES

- **Patch testing patients under Immunesuppresion (consensus)**
  - Topical CS: withdraw 3-7 days
  - Uv-exposure 1 week (Silverberg: 4 weeks)
  - Prednisone : no effect if dose <10 mg/d (withdrawal time 3-5 days)
  - Triamcinolone 40 mg IM (wait until 4 weeks after injection)
  - MTX, ustekinumab, TNF alpha inhibitors: Little to no effect
  - Azathioprine, cyA, MMF, tacrolimus (systemic): dose-dependent inhibition
  - No data regarding apremilast, JAK inh.
  - Dupilumab: Positive patch tests have been reported with patients on dupilumab

# PATCH TESTING CHALLENGES

- **Information and instructions to the patient**
- The number of positive, relevant reactions that patients remember decreases with increasing number of allergens and passage of time. **Written** information provided and **verbally** review patient's results at the time of the **final read**, and in **follow up** appointments (**1-3 months** following patch testing, and some intervals thereafter).
- If symptoms do not improve **systemic contact dermatitis** should be considered.
  - **pomphylox/hand** presentation, **generalized** dermatitis, **perioral**, perianal
  - formaldehyde-aspartamo-, nickel, balsam of Peru, gallates, propylene glycol, sorbic acid, benzoic acid, propionic acid, benzoyl peroxide
  - Diets 1 month

# OCCUPATIONAL CONTACT DERMATITIS



- **Epidemiologic** data are lacking. Likely **underestimated (underreporting)**
- ICD: **Gloves** (other: wet work, dry air, solvents)
- **Sodium hydroxymethyl glycinate** (formaldehyde releaser)
- Coconut derivatives : Cocamide DEA, Cocamido MEA, **Capryl diethanolamine** (metalworking fluids), **sodium cocoamphopropionate** (fast food restaurants hand wash)



# OCCUPATIONAL CD



- Airborne ACD from **medications**: benzodiazepines, sevoflurane (surgeon), omeprazol (horse trainers)
- **Fragrances**
  - **Beauty industry workers** : 47-times higher incidence rate ratio of allergy to fragrance compared to the average rate of all other occupations combined
  - Citral: SPA workers
  - D-limonene en limpieza
- Isothiazolinones: new professions: water cooling tower , ultrasound gel, detergent production worker
- **Prevention**
  - **Material safety data sheets (MASD)** : not required to mention irritants or sensitizers <1%
  - Specific training of occupational health skin (lacking in 50% of the pts)

# EMERGING ALLERGENS IN SHAMPOOS, SUNSCREENS



- **Shampoo** pattern: eyelids, ears, neck Surfactants
- **Alkyl glucosides** (Decyl glucoside, coco glucoside, laury glucoside)
- Decyl glucoside derivative from coconut oil fatty alcohols and potato starch,
- In shampoos and sunscreens (Tinosorb M also with bisoctizole and **Propilenglicol**)
- Sunscreen Benzophenones: 3,4 y 8. No cross-reactions between them.
- **Benzophenone 3: ACD; Photo-ACD, urticaria, anaphylaxis**, hormonal disruption
- Cross reaction with octocrylene and ketoprofen
- **Bar soaps have less surfactants and preservatives than liquid washes but similar amount of fragrances**
- Parabenes: **The non-allergen of the year 2019**. Excellent safety record, low sensitization rate of 0,6%: unjustified parabenoia