

NATIONAL DERMATOLOGY RESIDENT LECTURE SERIES SUMMARY

Lecture: High-yield Contact Dermatitis by Dr. Catherine Besner Morin

Date: April 21, 2020 via Zoom

Compiled by: Laura Iglesias-Girard and Naomi Labonté Truong, PGY4, Université de Montréal

Part I : Practical Tips for Dermatologists Who Want to Patch Test in Their Office

- How to patch test?
 - Supplies: allergens (approximately 100 doses per syringe), chambers (Finn vs. IQ chambers), paper tape, maker, refrigerator and freezer, nurse/assistant.
 - Have at least one reference book on hand: "Contact dermatitis" by Fischer.
- How to store allergens?
 - Must all be kept in the refrigerator except for the following: corticosteroids in alcohol, acrylates and isocyanate (which must be kept in the freezer).
 - Liquids, fragrances, epoxy, isocyanate, and acrylates must be applied on the chamber at the very last minute. Anything containing Vaseline can be prepared a few days beforehand.
- Patch testing technique:
 - Remove allergens after 48h, 1st reading after PT removal, 2nd reading 96-120h, 3rd reading (delayed) 7-10-21 days.
- Patch test reading is based on morphology: + to +++ reactions are based on induration, not on color.
 - Irritant reaction: glazed/no infiltration, pustular, rim effect and erosion.
 - Poral reaction with cobalt.
 - Stain: textile dyes and carmine.
- Know the causes of false negative and false positive patch tests.
- Contraindication to patch testing: pregnancy, active dermatitis on the back, >20 mg of Prednisone, phototherapy x 7-14 days and avoid sun exposure < 2 weeks.
- Special considerations:
 - Photo-patch testing: After a 24h application of patch tests: apply 5-10 joules of UVA on one set of patches. A new hapten is formed after UVA exposure; this hapten is allergenic (but not the original molecule). #1 photoallergen is oxybenzone (which cross-reacts with octocrylene, ketipofen, and fenofibrates). #2 photoallergen is octocrylene.
 - Allergens that require a delayed reading: gold, nickel, PPD, textile dyes, corticosteroids, neomycin.
 - ACD reactions to gold are very long-lasting (1-2 months): do not hesitate to prescribe a potent topical corticosteroid.

Part II: Allergen Classification

- Preservatives: Quaternium-15 releases the highest amount of formaldehyde. Benzalkonium chloride is associated with eye medications. Patients sensitized with thimerosal can still receive vaccines. Propylene Glycol is found in topical medication.
- Fragrances: if a patient is allergic to one fragrance, they must be told to avoid anything that contains fragrance as a whole (and not just avoid one single fragrance allergen). Many products do not disclose the full list of fragrances used.
- Emollients/humectants: lanolin and propylene glycol are the strongest sensitizers.
- Surfactants: The most common surfactants are sodium lauryl sulfate and laureth sulfate, which are found in syndets (they do not cause ACD but are irritants).
- Nail polish, think: Tosylamide formaldehyde resin and all fake nails think: acrylates.

NATIONAL DERMATOLOGY RESIDENT LECTURE SERIES SUMMARY

Lecture: High-yield Contact Dermatitis by Dr. Catherine Besner Morin

Date: April 21, 2020 via Zoom

Compiled by: Laura Iglesias-Girard and Naomi Labonté Truong, PGY4, Université de Montréal

- Paraben and Lanoline paradox: no reaction on normal skin, reaction on broken skin/dermatitis (weak sensitizers).
- Rubber: 90% of products added to rubber are either accelerators (ex: carba mix [#1 accelerator in gloves], thiuram, dialkyl thioureas [think neoprene], mercaptobenzothiazole [MBT]) or antioxydants (ex: black rubber mix [used in black colored rubber like a tire or a hose]).
 - Suggest Vinyl gloves = made of plastic
- Shoe allergens:
 - Glues: P-tert-butylphenol formaldehyde resin (PTBPF) [#1 single allergen in shoes], colophony.
 - Rubber accelerators [#1 class of allergens contained in shoes]: thiuram, carba >> MBT.
 - Potassium dichromate used to tan leather: an important shoe allergen in Europe.
 - Others: formaldehyde, metals, disperse dyes, thioureas.