40 YEARS OF FUN WITH CONTACT DERMATITIS IN OREGON

FRANCES J. STORRS
OREGON HEALTH AND SCIENCE UNIV.
PORTLAND, OREGON
OTHERS THAT MADE CONTACT DERMATITIS FUN

• RESIDENTS

• RESEARCH ASSISTANTS (MOST HAVE GONE TO MEDICAL SCHOOL (4 ARE DERMS AND ONE OPERATED ON ME)

• COLLEAGUES
EVERY PATIENT TAUGHT ME SOMETHING I USED TO UNDERSTAND AND HOPEFULLY HELP MY NEXT PATIENT
IT IS NOT EASY TO SEPARATE IRRITANT FROM ALLERGIC PATCH TEST REACTIONS

- Read your own patch tests
- Read all tests twice
- Re-do questionable reactions
- Run controls for “new” allergens
- Seek clinical relevance
IT CAN BE JUST AS HARD TO SEPARATE IRRITANT FROM ALLERGIC CONTACT DERMATITIS CLINICALLY.
THINGS ARE OFTEN NOT WHAT THEY SEEM

MY CONTACT CLINIC REFERRALS HAVE INCLUDED:

• DERMATOMYOSITIS, SCABIES, FUNGUS, PCT, ROSACEA, STEROID DEPENDENCY, PEMPHIGUS, PSORIASIS, PLEVA, NUMMULAR ECZEMA, XEROSIS, FACTITIA, LICHEN SIMPLEX CHRONICUS, FLAT WARTS

• DERMATOLOGISTS SHOULD BE DOING THE PATCH TESTING
WHENEVER I AM ADAMANT ABOUT SOMETHING I AM LIKELY TO BE WRONG.

COBALT REACTIONS LOOKED "PETECHIAL" TO ME

BUT.... THEY’RE NOT!!
cobalt chloride
COBALT REACTIONS
ARE...

• NOT FOLLICULAR
• NOT PETECHIAL
• NOT ALLERGIC
• IN THE ECCRINE ACROSYRINGIUM
• MAY BE TOXIC EFFECTS OF COBALT

STORRS FJ, & WHITE CR JR. : CUTIS 2000
“SHOE” CONTACT DERMATITIS”

• PATCH TEST NEGATIVES
• NACDG SCREENER AND EXTRAS (114 PATCHES)
• HIS WIFE’S NEW NIKE SHOES
ARE PEOPLE WHO SAY THEY ARE “ALLERGIC” OR “REACT” TO “BAND-AIDS” ACTUALLY ALLERGIC?

HARDLY EVER...THEY HAVE IRRITANT REACTIONS OR IT’S THE STUFF UNDER THE “BAND-AID” THAT’S THE PROBLEM

WIDMAN TJ, OOSTMAN H, STORRS FJ: DERMATITIS, 2008
18 WOMEN AND 8 MEN SAID THAT THEY HAD “REACTIONS” TO ADHESIVE TAPES AND OR TO “BAND-AIDS”

WE TESTED ALL OF THEM TO OUR STD 109 ALLERGENS AND TO 54 KNOWN OR SUSPECT ADHESIVE ALLERGENS
RESULTS

- 2/26 SUBJECTS (8%) PROBABLE IRRITANT TO AT LEAST ONE TAPE AT 2 DAYS

- 8/11 (73%) HAD A PROBABLE IRRITANT REACTION TO AT LEAST ONE TAPE AFTER LEFT ON FOR 7 DAYS (6/8 NEG. @48 HRS)
HOW CAN I USE THIS INFORMATION FOR OTHER PATIENTS?

• INFORM PATIENTS TO CHANGE “BAND-AIDS” MORE OFTEN

• APPLY TO SITUATIONS LIKE “OSTOMY DERMATITIS”
OSTOMY DERMATITIS

• PATCH TESTING OFTEN CONFUSING

• PTS. USE MULTIPLE CLEANSERS, ADHESIVES & POUCHES

• USE TOPICAL STEROIDS AND BECOME ATROPHIC

• CAN BE ALLERGIC, BUT IS USUALLY IRRITANT
TREATING OSTOMY DERMATITIS AS AN IRRITANT DERMATITIS

- CHANGE DAILY OR EVERY 2 DAYS
- CLEANSE WITH CETAPHIL OR SOAP AND WATER, DRY
- APPLY PROTOPIC FOR AS LONG AS CAN, LEAVING OPEN
- REMOVE PROTOPIC, APPLY IVY BLOCK, AND THEN APPLIANCE
GLYCERYL THIOGLYCOLATE

- IN “ACID,” 3 PART PERMS, AND SOME CYSTEAMINE PERMS

- HAIRDRESSERS SAID CUTTING PERMED HAIR WAS STILL A PROBLEM, AND GLOVES DIDN’T HELP THEM

STORRS FJ : JAAD, 1984
MORRISON LH, STORRS FJ : JAAD, 1988
PARA CHLORO META XYLENOL IN
THE SOAP OF A HEALTH CARE
WORKER
SOME ALLERGENS THAT CAN GO THROUGH GLOVES

- GLYCERYL THIOGLYCOLATE
- CHLOROXYLENOL
- EPOXY
- ACRYLATE
- TULIPOSIDE A
- GLUTARALDEHYDE
I HAVE NO CONFLICTS OF INTEREST TO DISCLOSE BUT..

I TEND TO BE OPINIONATED AND BIASED (HOPEFULLY WITH CAUSE)
IN MY OPINION, FRAGRANCE ALLERGY (CONTACT DERMATITIS CAUSED BY FRAGRANCES) IS VERY RARE.

ON THE OTHER HAND, FRAGRANCE ALLERGIC REACTIONS (POSITIVE PATCH TESTS) ARE COMMON.

BOTANICAL STUDY POSITIVE REACTIONS

<table>
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<th>EXTRACT</th>
<th>POSITIVE REACTIONS</th>
<th>RELEVANT REACTIONS</th>
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<tbody>
<tr>
<td>CHAMOMILE</td>
<td>9 (3 + PG)</td>
<td>1</td>
</tr>
<tr>
<td>TEA TREE OIL</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>PROPOLIS</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>LAVENDER</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>FEVERFEW</td>
<td>5</td>
<td>4</td>
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</table>
“ALLERGY” TO IMPLANTED METALS

- CHEAP JEWELRY TROUBLED HER
- NO HEARING AID PROBLEMS
- NO DENTAL WORK PROBLEMS
- PREVIOUS BREAST SURGERY WITH METAL CLIPS IN AXILLA AND NO OVERLYING DERMATITIS
## BOTANICAL STUDY
### POSITIVE REACTIONS

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<tr>
<td>DANDELION</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>NEROLI</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>D-USNIC ACID</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>LICHEN ACID MIX</td>
<td>3</td>
<td>3</td>
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<tr>
<td>YLANG-YLANG</td>
<td>2</td>
<td>2</td>
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SIMPSON EL, LAW SV, STORRS FJ: DERMATITIS, 2004
TOM’S OF MAINE: NATURAL DEODORANT (UNSCENTED)

- CHAMOMILE
- LICHEN EXTRACT
- ALOE VERA
- WITCH HAZEL
- CORIANDER OIL

NOW CONTAINS HOPS INSTEAD OF LICHEN MIX
A MYSTERY

• 42 YEAR OLD WOMAN WITH DERMATITIS ON EYELIDS AND LEFT EAR

• HX OF ATOPIC DERMATITIS

PATCH TESTING

• TESTED TO NACDG STANDARD TRAY AND BOTANICAL TRAY

• POSITIVE REACTIONS
  • LICHEN ACID MIX
  • D-USNIC ACID
  • LANOLIN ALCOHOL
  • FORMALDEHYDE
  • BACITRACIN
  • THIMEROSAL
MYSTERY SOLVED

• HER HUSBAND USED TOMS OF MAINE NATURAL DEODORANT (UNSCENTED)

• SHE OFTEN SLEPT ON HUSBAND’S AXILLA

• CONNUBIAL ALLERGIC CONTACT DERMATITIS
June 3, 1991

Carroll Evans, Jr., M.D.
426 C Street, 8A
Washington, D.C. 20004

Dear Carroll:

I was absolutely thrilled to death to receive the box of patch testing allergens which you sent this week. I would be really grateful if you would just drop at the bottom of this note a few comments about where this lot of chemicals came from and when it was put together, that is, the year. I think Elia Bindi was the woman who worked for Dr. Fisher, was she not? It's an incredible group of chemicals and they are in excellent condition. It is unlikely that they are still unchanged in the barriers, but the whole idea of them and of having them is just thrilling to me as a dermatologist interested in contact dermatitis. Have you ever used this patch testing kit? It looks almost brand new.

I am delighted. I consider myself in your debt and hope that you will present me with something that I can do for you. Thanks so much.

Sincerely yours,

Francis J. Storrs, M.D.
Professor
Department of Dermatology

FILM

Dated 9/11/91

Dear Francis:—I was so glad that you sent the patch testing kit. I bought it at the last big (that is, red) meeting, and when I told the ARS president there but didn't think about it. When I did think about it, she suggested it was a new way to do it. Since I have a new job, I think of it. If you have any further questions, please let me know.

I hope you have a good summer, Carrol.
ARE PATCH TEST ALLERGENS STORED IN THE DARK BUT AT ROOM TEMPERATURE FOR 40 YEARS ON 2 U.S. COASTS, STILL EFFECTIVE??

MATERIALS

NACDG ALLERGENS
03-05

- MBT 1%
- PPD 1%
- EPOXY 1%
- BENZOCAINE 5%

40 Y.O. ALLERGENS

- MBT 1%
- PPD 2%
- EPOXY 1%
- BENZOCAINE 10%
RESULTS: MERCAPTOBENZOTHIAZOLE

3/3 PATIENTS REACT TO OLD MBT

PARAPHENYLENEDIAMINE

5/5 PATIENTS REACT TO OLD PPD
EPOXY RESIN

3/4 PTS REACT TO OLD EPOXY RESIN

BENZOCAINE

2/2 PATIENTS REACT TO OLD BENZOCAINE
CONCLUSIONS

- 40 Y.O. PET. PREPARATIONS OF MBT, PPD, EPOXY RESIN, AND BENZOCAINE WERE POSITIVE IN KNOWN ALLERGIC PATIENTS.

- BUT....DEPENDABLE AND ACCESSIBLE ANALYTIC METHODS FOR PATCH TEST ALLERGEN STABILITY ARE NEEDED.
UNSOLVED CONTACT DERMATITIS MYSTERIES

• WHAT ON EARTH IS GOING ON IN SYSTEMIC CONTACT DERMATITIS?

• THIS DUST MITE THING. DOES IT DIAGNOSE ATOPIC DERM.?

• IMPLANTED METALS?

• IS HYPERKERATOTIC HAND ECZEMA REALLY PSORIASIS?
DUST MITE “ALLERGIC” REACTIONS
AN EXERCISE IN RELEVANCE MAKING
Rate of Patch Test Reactions to a *Dermatophagoides* Mix Currently on the Market: A Mite Too Sensitive?

Mark D. P. Davis, Donna M. Richardson, and Debra D. F. Ahmed

AJCD 13 (2): 71-73, 2002

20% DUST MITE MIX: 55% WITH “POSITIVE” REACTIONS
Dermatophagoides
Mix 20% pet.
2 Day Read. JC.
10.26.01.
PATCHES ALL NEGATIVE
## DUST MITE PATCH TESTS
OREGON, 2002-2004  (POSITIVE 5D/7D)
MARGINAL OR POSTIVE REACTIONS

<table>
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<tr>
<th></th>
<th>ATOPIC (HF, A, E)</th>
<th>NON-ATOPIC</th>
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<tbody>
<tr>
<td>DM 10%</td>
<td>15/22 (68%)</td>
<td>52/85 (61%)</td>
</tr>
<tr>
<td>DM 1%</td>
<td>13/29 (45%)</td>
<td>63/127 (50%)</td>
</tr>
<tr>
<td>DM 0.1%</td>
<td>2/10 (20%)</td>
<td>13/44 (30%)</td>
</tr>
<tr>
<td>DM 0.01%</td>
<td>0/16 (0%)</td>
<td>7/90 (8%)</td>
</tr>
<tr>
<td>200 IR</td>
<td>7/27 (26%)</td>
<td>17/119 (14%)</td>
</tr>
</tbody>
</table>
<pre><code>                | 0/27 (0%)        | 4/119 (3%)  |
</code></pre>

* NO MARGINALS

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**Contact dermatitis can boggle the mind.**