2017 Winter Clinical Dermatology Conference
Diagnostic Pearl from a Master
Robert T. Brodell, MD
Professor and Chair
Department of Dermatology
University of Mississippi Medical Center
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A Case That Taught me a lot
Findings

• Red, blanching, tender rash, lacking confluence with shaggy or feathered border
• Fever, chills, rigors, increased WBC with left shift, proximal lymphadenopathy responds to antibiotics
• Tenth recurrence in 5 years, always the same leg with venectomy
• Why????

Hypersensitivity Cellulitis (Recurrent Lymphangitic Cellulitis Syndrome)

Concept

• Venectomy interrupts major lymphatic vessel

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• Bacteria enter distal fissures
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Concept
- Venectomy interrupts lymphatics causing a localized immune defect
- Bacteria enter distal fissures
- Bacteria and toxins clear slowly
- Antibiotics clear acute disease
- Must kill tinea to stop recurrences

The leg with venectomy is an Immunocompromised District with down-regulated immunity (Vincenzo Ruocco)

A Question!
- Have you seen warts in tattoos?

A Question!
- How many of you have seen warts in tattoos?
- Could it be that you have seen it but not recognized it as anything but a collision between unrelated processes?
Could black tattoo dye nanoparticles cause an immunocompromised district??
Why else would the warts be in the tattoo??

Reference
Miller DM and RT Brodell. Verruca Restricted to the Areas of Black Dye within a Tattoo. Arch Dermatol. 1994; 130:1453-4
I started looking for warts in tattoos and found 7 cases in a couple of years!!!
### Summary

- Warts DO occur preferentially in tattoos
- Situation NOT explained by inoculation by HPV in ink or on cutaneous surface or all colored inks would be equally likely to produce warts in tattoo ink
- It is likely that nanoparticles produce an immunocompromised district with down-regulated immunity.*

Additional Data: All other articles on this subject (n=14) demonstrate a propensity for warts to be primarily in black and blue ink

### References


### Average Number of Warts per 1000 mm² and the Percentage of Area Involved by Warts (SketchAndCalc Software)

<table>
<thead>
<tr>
<th></th>
<th>Black (n=5)</th>
<th>Color (n=2)</th>
<th>Normal (n=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warts per 1,000 mm² Mean (SD)</td>
<td>11.33 ± 11.65</td>
<td>10.36 ± 3.33</td>
<td>9.00 ± 1.00</td>
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<tr>
<td>Wart area per mm² Percentage of area Mean (95% CI)</td>
<td>4.16 %</td>
<td>0.33 %</td>
<td>0.00 %</td>
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</tbody>
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*A Case of Voodoo*
Case
44 year old with eyes bulging a decade after tattoo placed.
• Self-diagnosis: Voodoo
• Warning: If you biopsy eyes you will go blind

Summary
• Late onset in conjunction with pulmonary sarcoidosis suggests a particular color ink set up an immunocompromised district with localized upregulated immunity
<table>
<thead>
<tr>
<th>Local Immunity down-regulated</th>
<th>Local Immunity Up-regulated</th>
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</thead>
<tbody>
<tr>
<td>• Regional extracutaneous</td>
<td>• Regional extracutaneous</td>
</tr>
<tr>
<td>• Lymphedema-associated</td>
<td>• Neurologically mediated</td>
</tr>
<tr>
<td>• Recurrent lymphangitic cellulitis syndrome</td>
<td>• Cutaneous sarcoidosis within shingles dermatome</td>
</tr>
<tr>
<td>• Angiosarcoma in lymphedematous limb (Stewart-Treves)</td>
<td>• Multifactoral</td>
</tr>
<tr>
<td>• A variety of amputation stump tumors</td>
<td>• Stump pemphigoid</td>
</tr>
<tr>
<td>• Neurologically mediated</td>
<td>• Intra-cutaneous</td>
</tr>
<tr>
<td>• Segmental immune disorders after neurologic injuries (example: tumors and warts in scars from herpes zoster)</td>
<td>• Granuloma annulare in injured skin</td>
</tr>
<tr>
<td>• Intra-cutaneous</td>
<td>• Sarcoidosis in scars, foreign body reactions</td>
</tr>
<tr>
<td>• Tattoo-associated warts</td>
<td>• Radiation recall (chemotherapy rash in areas of current or past radiation)</td>
</tr>
<tr>
<td>• Kaposi-varicealiform eruption spread to areas of active atopic eczema</td>
<td></td>
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<tr>
<td>• Local radiation</td>
<td></td>
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<tr>
<td>• Iso-radiotopic non-response in drug rashes</td>
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<tr>
<td>• Congenital variability due to skin mosaicism</td>
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