Pearls from the Masters

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DISCLOSURE OF RELATIONSHIPS WITH INDUSTRY

Peter P. Rullan, MD
S044 - Pearls from the Masters of Dermatological Surgery

DISCLOSURES
I do not have any relevant relationships with industry.
My 3 Pearls:

• Full face and segmental Croton Oil/Phenol Peels for the treatment of wrinkles and laxity; and for Acne scars.

• Combining CROSS Carbolic, Cannula Subcision and Resurfacing (micro-needling or fractional lasers) to treat all skin scar sub-types and in all skin colors.

• The use of bovine collagen powder as a bio-stimulatory agent for granulation tissue in Mohs defects and large excisions.
The 2-day Phenol Chemabrasion Technique for deep wrinkles and acne scars


- **Full Face Technique** of 2 day phenol chemabrasion for more severe and generalized aging or acne scars
  - Fully Monitored with IV Ringers and IV sedation/nerve blocks
  - Application of Rullan 0.35% Croton oil/50% Phenol- taped x 24 hours
  - Abrasion and de-epithelialization of scars on day 2
  - Peel re-application on day 2 into deep scars or wrinkles
## History of Croton Oil in Phenol Peels
(we’ve gone back to the original formulas of the 1920’s)

<table>
<thead>
<tr>
<th>Year &amp; Doctor</th>
<th>Croton Oil</th>
<th>Phenol</th>
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<tbody>
<tr>
<td>1920s - 1990 Lay Peeler</td>
<td>0.16 - 0.5%</td>
<td>44 - 62%</td>
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<tr>
<td>1959 Brown/Litton</td>
<td>0.4% - 0.5%</td>
<td>48% - 50%</td>
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<tr>
<td>1961 Baker-Gordon</td>
<td>2.1%</td>
<td>50%</td>
</tr>
<tr>
<td>1993-2000 Hetter</td>
<td>0.1 - 1.6 %</td>
<td>35%</td>
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<tr>
<td>Rullan</td>
<td>0.35%</td>
<td>50%</td>
</tr>
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</table>
Phenol (Hetter) Peels
Need to mix your own phenol formula
Achieve Clinical endpoints- Deep peels

**Solid white frost reflect injury down to immediate to mid- reticular dermis**

**Gray edema and Epidermolysis**
Taped for 24 hours

Powder mask for 7 days

Debride coagulum

99% of patients are 99% re-epithelialized by day 9

Mask separates and is washed off
Bismuth Subgallate powder mask is an antiseptic and anti-inflammatory agent. Creates a protective “cocoon” until skin re-epithelializes.

“Open Technique”

White vinegar compresses, Aquaphor, gentle debridement at home or in office.
Acne Scars in Hispanic-Caribbean Black type VI
Stone Phenol in Type VI Afro-Hispanic lighter, normal skin tones (pseudohypopigmentation) 3 years later
Skin of Color Fitzpatrick type V

Within 60 days

re-coloration occurs after deep phenol peels
Hispanic Skin type IV with Acne Scars
After 2nd full face croton oil/phenol chemabrasion

1st peel baseline  2nd peel baseline  1 month post op
2 weeks later
Taped Exoderm™ with chemabrasion, after 6 months
PIH post phenol/0.35% croton oil chemabrasion on skin type IV can be managed successfully with series of 30% salicylic peels, 2% HQ, Fluocinolone 0.01% and 20 mg/day isotretinoin x 30 days.

2 months after peel
Peer Reviewed Publications 2018-2019


- **J Am Acad Dermatol** Feb 2019 “Anti-aging effects of ingenol mebutate for patients with actinic keratosis” and phenol-croton oil peelings C. Wambier, K Lee, T Bertolini, P Rullan, F Beltrame
Pearl #2

Combining CROSS Carbolic, Cannula Subcision and Resurfacing (micro-needling or fractional lasers) to treat all skin scar subtypes and in all skin colors.

• 45-60 min procedure
• In and out (drive, fly)
• Least amount of down time and side effects like PIH
• Reasonable cost (requires a series of 3)
• Good patient satisfaction ("acne.org")
Rolling Scars and Dermal Fibrosis

Rolling Scars, Dermal Fibrosis and Resurfacing

Ice-pick and Box scars

Atrophic scars

Subcision: vertical tethers (break tethers, produce collagen)

Microneedling: horizontal bands

CROSS (carbolic): must "bathe" the scar in acid to remove all lining to allow in scar

Fillers: 1. PRF (fibrin)
2. Sculptra prevent reattachment of tethers
NEW Combination Approach for Acne Scars

Sequence:

1. CROSS (88% phenol)

2. Subcise with cannula- rolling scars (tumesce)

1. Microneedling, Erbium or CO2 Pixel

2. Fillers after > 2 sessions
   (when scars are distensible & with soft shoulders)

*Most difficult cosmetic problem to get patient satisfaction

VERY INEXPENSIVE AND EFFECTIVE
I stopped doing subcision with Nokor because of the high incidence of hematomas (consolidated)
18 gage Cannula Subcision
(fat transfer tool, bi-plane-dermal SQ plane)
15 patients, CROSS technique, compared 90% TCA to 88% Carbolic acid: both effective, less scar widening with Carbolic.
Carbolic creates edema and then a micro-vesicle. This is a safer way to change a scar’s shape, allowing for secondary healing from all walls of a scar without making it bigger.

Apply with fine paint brush
2 Sessions of CROSS, Subcision & Erbium

Shadow photography is best way to reveal contour deformities
Filled in, softer shoulders, distensable
2 sessions, no fillers
PEARL # 3

The use of bovine collagen powder as a bio-stimulatory agent for granulation tissue in Mohs defects and large excisions.

Sheets of 2 x 6 cm (7 mm thick) or in powder form

We can add topical Bismuth subgallate powder to dry the wound if cellulitis occurs.
Mechanism of action of gelatin sponge for secondary healing

- Endothelial cells and fibroblasts have surface receptors for gelatin which then form a “living scaffold”

- Forms “granulation tissue” even over periosteum, galea and fascia

- Used in Ortho to supports osteoblasts (allows for bone regeneration)²
Wound care

• After tumor excision, the wound:
  • is filled with “sized” collagen sponges or powder
  • Cover with Aquaphor™ and then Telfa or Adaptic
  • Bolster down the “graft” for 5-7 days
  • Apply gauze and then Hypafix.
  • RTC 5-7 days to remove bolster and add more Gelfoam

• The patients were instructed to cleanse around the wound with hydrogen peroxide every 1-2 days, re-apply Aquaphor™ and always keep bandaged to prevent dessication.

• Nurses wound care visits are 1-2x/week

• Wounds may need to be debrided and re-packed with some additional gelatin sponges to ensure a completely filled-in defect at each visit (2x /week)

• Wound care is maintained until defect has filled least 75%
Stages - Bolster helps secure the Gelfoam “graft”
Notice the granulation bed which includes Gelfoam particles. No contour deformity in the post-op.

*Was my 1st pt.- the plan was to do a FTG in 1 week*

At 2 weeks
(Wound took 14 weeks to heal)

2 years later
Pt. is 92 y/o with Alzheimers with 2 large Mohs’ defects from SCC’s

12 weeks to heal
6 weeks to fill in and re-epithelialize
Notch can be filled in with HA gels
12 months later
BCC R inner canthus/nasal root

Notice gelatin sponges within granulation tissue
SSMM leg, down to fascia and >1 cm margins.
Was quoted $4,000 for Mohs and closure elsewhere (cash pt.)
We partially close large defects as much as possible and then fill-in the remaining defect with Gelfoam.
Thank you

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Where Science and Skill
Meets Art and Compassion