Aesthetic and laser
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Vitiligo: Potential emerging treatments

- **Topical prostaglandin E2**: Encouraging open series. Need confirmation in prospective randomized trials.

- **Afamelanotide**: Potentially useful in dark skinned individuals. But potent tanning of non-lesional skin and moderate improvement compared to UVB alone. Need confirmation in larger studies.

- **Janus kinase inhibitors**: Strong fundamental level of evidence. Encouraging case reports and in a short retrospective study. Will probably need to be combined with phototherapy. Potentially very interesting for active forms of vitiligos. Prospective trials required to assess the efficacy and limitations of this approach.

- **Apremilast**: Acts on Th1 and Th17, CXCL10 but also can stimulate melanogenesis by activating the cyclic AMP pathway. Prospective trials ongoing.

- **Topical Wnt agonists**: Strong fundamental level of evidence demonstrating the interest of targeting Wnt pathway to induce the differentiation of melanocytes stem cells and thus repigmentation. No clinical data available yet.

Thierre Passeron
Melasma


Therapeutics

Mélasma =
UVB + UVA + Blue light
+ pigmentation
+ vascularisation
+ elastosis and fibroblast secreted factors
+ altered basal membrane

=> Global therapeutic approach
Dermatoscopia del melasma

Dermoscopy of the melasma lesion revealing diffuse light-to-dark brown (white arrow) pseudoreticular network, multiple brown dots, granules and globules (black arrows), arcuate and annular structures (blue arrows), with sparing of the perifollicular region (green arrows), and around the openings of sweat glands (yellow arrows) (polarizing mode, ×20)
Mechanism of action of tranexamic acid in melasma

- Prospective study with biopsies after 12 weeks of treatment with TA

- TA might act on melasma through a decreased production of endothelin 1
Melasma and peelings

MODIFIED JESSNER’s SOLUTION (MJS)

AVOID RESORCINOL:

- Persistent erythema;
- Allergic contact dermatitis;
- Toxicity to thyroid (cumulative).

ADD CITRIC ACID:
- More stable formula.

- LESS PIH.


Melasma and peelings

Daily Practice:

Q-Switched 1064nm + MJS – 1 session

Wambier CG, MD, PhD
Pilot Evaluation of Safety, Efficacy and Tolerability of a New Topical Formulation for Facial Hyperpigmentation, Combining Ascorbyl Tetraisopalmitate and Crosslinked Resilient Hyaluronic Acid

Novel topical therapy for facial hyperpigmentation combining two synergistic melanogenesis inhibitors:

**Ascorbyl tetraisopalmitate (ATIP)**
- Esterified form of vitamin C at equivalent concentration to 8% L-ascorbic acid
- ↓ Multiple oxidative steps during melanogenesis → ↓ Tyrosinase activity
- Lipid-soluble → faster percutaneous absorption
- Better stability + lower irritancy than other forms of vitamin C
- ↓ Collagen crosslinking + oxidation of proteins and lipids + synergy with other antioxidants → UVA/UVB Photoprotection, Skin lightening, Skin rejuvenation

**Crosslinked resilient hyaluronic acid (RHA)**
- Tyrosinase inhibition by metabolic end-product, N-acetylg glucosamine
- Other direct effects on melanogenesis