Pediatric Dermatology
Aniza Giacaman.
Hospital Universitari Son Espases, Palma de Mallorca
Optimal management of Pediatric Morphea

Dr. Yvonne Chiu
Pediatric morphea is different from adult morphea

• More severe disease
  • Linear morphea most common.
  • More likely to have extracutaneous manifestations.

• Longer disease duration
  • 1/3 with active disease >10 years.
  • Periods of remission and disease reactivation.
What extracutaneous manifestations do you have to worry about in children?

Linear morphea and early disease onset (< 10 years) are risk factors for extracutaneous manifestations.

- Neurologic manifestations: 20-40%

Seizures, headaches, neuropathy, behavioral changes, CNS vascular malformations, asymptomatic MRI abnormalities.

There is poor correlation between symptoms and MRI findings.

MRI at diagnosis even if asymptomatic.
Serologic screening?

• No

• In linear morphea, certain autoantibodies were associated with disease severity, but not disease activity.

• AHA, ANA and SsDNAab.
How should we treat pediatric morphea?

- Topical therapy for localized superficial lesions.
- Phototherapy for widespread superficial lesions (NBUVB and UVA1)
- **Systemic therapy for deep lesions, linear morphea, and face.**
  - Methotrexate (moderate-severe morphea).
  - Subcutaneous is preferred.
    - Methotrexate 1 mg/kg/week SQ (max 25 mg)
    - Methotrexate 1 mg/kg/week SQ (max 25 mg) +
    - Methylprednisolone 30 mg/kg/dose IV (max 1000 mg)
    - Methylprednisolone for 3 consecutive daily doses a month for 3 months
Systemic and novel management of alopecia areata in Children
Dr. Kimberly Morel
Alopecia areata: prognosis.

- Course **unpredictable**:
  - Up to 50% improve spontaneously within 1 year.
    - 8% for extensive disease (>50% scalp involvement)
    - 68% for limited disease (<25% scalp involvement)
  - 5% develop Alopecia Totalis (AT) or Alopecia Universalis (AU) or overlap.
Manual microblading

- Semipermanent tattoo used to create the appearance of eyebrow hairs.
2.5 mg/ml TAC same benefit as 5 or 10 mg/ml


**Fig 1.** Treatment algorithm for the management of alopecia areata. **DPCP**, Diphenylcyclopropene; **JAK**, Janus kinase; **SADBE**, squaric acid dibutylester.
Janus kinase (JAK) inhibitors

- Oral JAK inhibitors (tofacitinib and ruxolitinib) have been shown to be efficacious in alopecia areata.

- The durability of response is variable.

- Recurrence of hair loss after discontinuation.

Mackay-Wiggan J et al. JCI Insight 2016;1(15);e89790
Tofacitinib for Severe Alopecia Areata in Adolescents

- Retrospective review
- 13 adolescent patients with AA, AT, AU
- Age 12-17 years
- Tofacitinib 5 mg po BID
- 9 experienced significant hair regrowth
- Adverse events were mild.
Safety:

- **Tofacitinib:**
  - Lymphoma
  - Immunosuppression: TBC, hepatitis prior to treatment.

- **Ruxolitinib:**
  - Infections: urinary tract
  - Progressive Multifocal Leukoencephalopathy (PML)
Topical JAK Inhibitors

- 6 pediatric AA, AU, AT patients
- **Age 3-17 years**
- **Topical Tofacitinib 2% liposomal base**
- **Topical Ruxolitinib 1-2% liposomal base**
- **4/6** experienced some hair regrowth
- **2 patients** had 80-95% regrowth

*Topical JAK inhibitors may also be effective but have not been fully evaluated.*

Vascular Birthmarks
Dr. Ilona Frieden
PHACE risk

- 30% of IH > 5cm
- Especially segments 1, 3 and 4.
- PHACE should be considered with 1 major criterion of PHACE and a large segmental hemangioma of:
  - Neck, upper trunk, or trunk and proximal upper extremity.
- Large periorbital IH even if not extending to S1
- Segmental scalp

PHACE risk: What to do?

- MRI head and neck
- Echocardiogram
- Eye exam
Propranolol: Cerebrovascular risk

- Ischemia/stroke: Very low.

- Need to risk-stratify degree of CNS arteriopathy.
An absolute contraindication to propranolol

- **Severe coarctation of aorta.**

- An **echocardiogram** is strongly recommended for patients at higher risk for PHACE.
Aplasia cutis congenita
Dr. Renee Howard
Aplasia cutis congenita

• ACC is a congenital absence of skin with various etiologies.

• Unclear pathophysiology.

• Approximately 86% of ACC cases involve the scalp, particularly the vertex, although the skin defects can be located nearly anywhere.

15-20% ACC have underlying osseous structures defects.
Scalp ACC: When to Image?

- Midline
- Membranous
- Hair collar
- Vascular stain