Welcome to the Hair and Nail Clinic 2010

How to take a history:

Is hair coming out “by the roots” or is it breaking?
Increased shedding or increased thinning?
Duration
Medications
Menses, pregnancies, menopause
Past health, especially in previous year
Hair care, hair cosmetics
Family history of similar problem
Diet: adequate protein? adequate iron?

Clinical examination

Hair length: How long does hair grow? All same length? Size of pony tail?
Hair texture; silky, shiny, brittle, dull?
Pattern and distribution of hair loss
“Pull test”, “Tug test”
Hair Card assessment:
Miniaturized hair? Hair tips tapered or broken?
Scalp
Hair elsewhere: too much or too little
Acne, hirsutism, obesity, virilization

Classify hair disorders into diagnostic groups:
Non-cicatricial (scarring) alopecia vs cicatricial:
  Non-cicatricial:
  Hair coming “out by the roots” or Hair breaking
  Differential diagnosis of each
  Cicatricial:
  Primary or Secondary

Basic diagnostic techniques: Hair Pull test, Hair Tug test, Hair Card,
Hair mount, Scalp biopsy

How to do a Hair Pull test:
*Ask the patient if it’s okay to pull the hair
*With the thumb and forefinger grasp a small swatch of 20-30 hairs and grasp the hairs close to the scalp.
*Gently but firmly slide the fingers away from the scalp, at a 90 degree angle, along the entire length of the hair swatch. Do not tug or jerk.
  - Negative pull test = 1 to 4 hairs
  - Positive pull test = 5 or more hairs
*Where to pull?
  In alopecia areata:
  - At the margin of a patch to see if the patch is active
  - In any unaffected site to see if there is pending activity
  - Pull on a patch of new growth to see if the new hair “is serious”.

How to use the Hair Card (enclosed)

How to make a Hair Mount:
  Decide if hair shaft or hair bulb are relevant
  Place hair on contrasting black or white velvet background
  Cut hair to be mounted into 1-2cm segments
  Place four to five segments parallel to long axis of slide
  With wooden end of Q-tip, drop 1 or 2 drops of mounting medium on hairs
  Mounting medium: Permount, Harleco synthetic resin (not oil or KOH)
  Cover with cover slip, press gently to eliminate bubbles

When to do a scalp biopsy:
  In all scarring alopecias
  Occ. in trichotillomania, alopecia areata, androgenetic alopecia

How to do a scalp biopsy:
  Select site, mark with marking pen
  1% xylocaine with epinephrine; wait 10 minutes
  Full thickness biopsy to subcutaneous fat; 3 0 suture, remove in 2 weeks
  On path requisition write “Scalp biopsy: for horizontal sections”
    If two biopsies are done request one for horizontal sections and one for vertical sections
Goals and Objectives
Hair and Nail Clinic
1st Year Dermatology Residents

<table>
<thead>
<tr>
<th>Patient Care</th>
<th>Med Knowledge</th>
<th>Communication</th>
<th>Professionalism</th>
<th>Practice-Based Learning</th>
<th>Practice-Based Systems-Based Practice</th>
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<tbody>
<tr>
<td>Learn basics of history taking and clinical exam</td>
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<tr>
<td>Write clear, concise and structured notes</td>
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<tr>
<td>Familiarity with the hair growth cycle</td>
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<tr>
<td>Recognize and manage common hair disorders: alopecia areata, androgenetic alopecia, telogen effluvium, structural hair shaft anomalies, trichotillomania, anagen arrest</td>
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<tr>
<td>Classify hair disorders into diagnostic groups</td>
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<tr>
<td>Learn basic diagnostic techniques</td>
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<tr>
<td>Familiarity with administration and dosing of intralesional triamcinolone acetonide, immunomodulating agents (topical anthralin, oral hydroxychloroquine, mycophenolate mofetil, cyclosporine, oral corticosteroids), oral antibiotics, oral retinoids, topical minoxidil, finasteride, oral contraceptives in androgen-mediated skin disorders (eg. androgenetic alopecia, acne, hirsutism)</td>
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<td>Present at least two patients per year at weekly rounds</td>
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<td>Demonstrate respect for patients, staff, and peers</td>
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<tr>
<td>Following through on patient issues and not leaving loose ends</td>
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<tr>
<td>Use medical literature in relation to patient care</td>
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<tr>
<td>Learning how to get things done for patients with varied insurance types or status</td>
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<tr>
<td>Thinking of cost effectiveness in terms of some ineffective treatment that might be commonly done with selected patients</td>
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</tbody>
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Required Readings for First Year Residents
Androgenetic alopecia


Frieden IJ, Price VH. Androgenetic alopecia. In Pathogenesis of Skin Disease, Thiers & Dobson (eds), Churchill Livingstone, NY 41-55, 1986

Alopecia areata


Video: How to inject alopecia areata

Cicatricial alopecia


Structural hair shaft anomalies

Trichotillomania


Anagen arrest
Goals and Objectives
Hair and Nail Clinic
2nd Year Dermatology Residents

<table>
<thead>
<tr>
<th>In addition to the goals for first-year residents:</th>
<th>Patient Care</th>
<th>Med Knowledge</th>
<th>Communication</th>
<th>Professionalism</th>
<th>Practice-Based Learning</th>
<th>Practice-Based Systems-Based Practice</th>
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<tbody>
<tr>
<td>Recognize more complex and less common hair disorders such as cicatricial alopecias (including lymphocytic group, neutrophilic group), trichothiodystrophy, loose anagen syndrome, uncombable hair syndrome, bubble hair, hair loss in lupus erythematosus, syphilis, graft vs host disease, thyroid disease</td>
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<td>Understand special problems of African-American hair</td>
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<td>Familiarity with hair follicle and hair shaft morphology; hair bulge</td>
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<td>Knowledge of vertical and transverse histology of normal scalp</td>
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<td>Knowledge of transverse histopathology of common scalp disorders</td>
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<tr>
<td>Understand basics of hair cosmetics</td>
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<td>Understand hormonal control of the hair follicle</td>
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</table>

Required Readings for Second-Year Residents

Dermatopathology


Androgenetic alopecia
Price VH. Testosterone metabolism in the skin. A review of its function in androgenetic alopecia, acne vulgaris, and idiopathic hirsutism including recent studies with antiandrogens. Arcg Dermatol 111:1496-1502, 1975


Cicatricial alopecia


Trichothiodystrophy


Loose Anagen Syndrome
Goals and Objectives
Hair and Nail Clinic
3rd Year Dermatology Residents

<table>
<thead>
<tr>
<th>Patient Care</th>
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<th>Practice-Based Learning</th>
<th>Systems-Based Practice</th>
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<tr>
<td>Greater depth of knowledge of all the goals of the first and second-year resident</td>
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<tr>
<td>Familiarity with genetic basis of structural hair shaft anomalies</td>
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<tr>
<td>Familiarity with current debates on some major issues in hair disorders</td>
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<td>Familiarity with current hair growth assessment methods, i.e. hair counts, hair weights, global photography</td>
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<td>Familiarity with hair follicle transplants (restoration)</td>
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</tbody>
</table>

Required Readings for Third-Year Residents

Alopecia areata


Androgenetic alopecia


Price VH, Menefee E. Changes in hair weight and hair count in men with androgenetic alopecia after application of 5% and 2% topical minoxidil, placebo, or no treatment. JAAD 1999; 41:717-21


Cicatricial alopecia


Navarini AA, Trüeb RM. 3 cases of dissecting cellulitis of the scalp treated with adalimumab: control of inflammation within residual structural disease. Arch Dermatol 146: 517-20, 2010


Telogen effluvium

The HAIR CARD

Vera H. Price, M.D., F.R.C.P. (C)

To assist in the examination & visualization of hair on the scalp, brows, eyelashes, or elsewhere.

What the Hair Card does:

Demonstrates miniaturized hair
Demonstrates new hair growth
Differentiates new hair from broken hair

The ruler portion is used for:
- Measuring length of new growth
- Measuring temporal recession
- Measuring dimensions of area of hair loss

How to use the Hair Card:

A good light source directed at the hair is essential when using the Hair Card.
The black or white side is used to contrast with the color of the hair:
- If dark hair is examined, use white side.
- If blonde or white hair is examined, use black side.

To visualize the hair, place the blank (without any writing) portion of the card under or behind the hair to be examined. (The larger the blank portion of the card, the more useful it is)
Always place the Hair Card on the skin or as close to the skin surface as possible

To demonstrate miniaturized hairs in androgenic alopecia:

Select a thinning site on the scalp
Part the hair with your fingers
Place the Hair Card on the part you have created, directly on the scalp surface
A good light must be directed at the selected site
New short growth will be apparent against the contrasting color of the Hair Card, and miniaturized (thin) hair is easily identified and contrasted with new short growth of normal size (girth)

To differentiate new hair growth from broken (or cut) hair:

Place the Hair Card under the distal ends of the hair in question.
New growth is easily identified because the distal ends are tapered or pointed
Broken hair is easily identified because the distal ends are blunt or straight

To measure temporal recession

Using the ruler side of the Hair Card, measure the distance from the lateral end of the brow to the apex of the temporal recession. In a male without temporal recession, this distance is approximately 7-7.5 cm.