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Care of Ethnic Skin

Learning objectives

- Define ethnic skin/skin of color
- Discuss skin and hair disorders that disproportionately affect patients of color
- Discuss cultural practices that may have cutaneous sequelae
- Medication/procedural considerations in skin of color

Fitzpatrick Skin Type

- Ethnic skin or skin of color
 - Broad range of skin types and complexions that characterize individuals with darker pigmented skin
 - Includes African, Asian, Latino, Native American, and Middle Eastern decent
 - Encompasses Fitzpatrick skin types IV - VI





Skin of color

- Skin of color patients have distinct:
 - Cutaneous and hair characteristics
 - Cutaneous disorders and reaction patterns
 - Cutaneous malignancy
 - Pigmentary disorders
 - Cutaneous manifestation of systemic disease
 - Skin disorders without systemic disease
 - Hair/follicular disorders
 - Diverse cultural/religious practices affecting the skin

Cutaneous malignancy



Cutaneous malignancy

- Skin cancer
 - Incidence of both non-melanoma skin cancer and melanoma
 - 20% to 30% of all neoplasms in Caucasians
 - 2% to 4% of all neoplasms in Asians
 - 1% to 2% of all neoplasms in blacks and Asian Indians
- Risk factors
 - Ultraviolet (UV) radiation from sunlight
 - Scarring processes/chronic injury (e.g. burns, non-healing leg ulcers, skin lupus, radiated skin)
 - Depressed immune system
- Disparity noted with greater morbidity and mortality

Non-melanoma skin cancers

- Non-melanoma skin cancers present with atypical clinical presentations
 - Hispanic and Asian (BCC > SCC)
 - AA (SCC > BCC)
 - Pigmented
 - Can occur in sun protected areas (lower legs and perianal)



Melanoma

- Melanoma:
 - Acral lentiginous melanoma is the most common subtype in Blacks
 - Feet, palms, fingernails, toenails, and inside of the mouth
 - Poor prognosis, high mortality secondary to its propensity for delayed diagnosis and deep invasion at presentation



Melanonychia

- Melanonychia (nail streaks):
 - Occurs more commonly in dark-skinned individuals
 - Nearly all Afro-Caribbean's will develop black-brown pigmentation of the nails by the age of 50
 - Melanocytic (pigment) activation or hyperplasia



Pigmentary disorders

Post-inflammatory hyperpigmentation

- Post-inflammatory hyperpigmentation (PIH)
 - PIH is an acquired excess of melanin pigment following cutaneous inflammation or injury
 - Tan to dark brown (epidermal melanin) or gray-blue to gray-brown (dermal melanin)
 - Can take months to years to improve
 - Significant cosmetic and psychosocial consequences



Post-inflammatory changes



Pigmentary disorders

- Melasma
 - Dark patches on sun-exposed areas of skin (forehead, cheeks, upper lip, and nose)
 - Common in premenopausal women of color
 - Underlying causes: genetics, hormones, and sunlight
 - Shade of brown is in part determined by the depth of pigment in the skin



Pigmentary disorders



Vitiligo

- Acquired pigmentary disorder characterized by depigmentation from loss of epidermal melanocytes
- Equal incidence in all skin types
- Disfiguring for those with darker skin types



Hair Care and hair disorders in skin of color

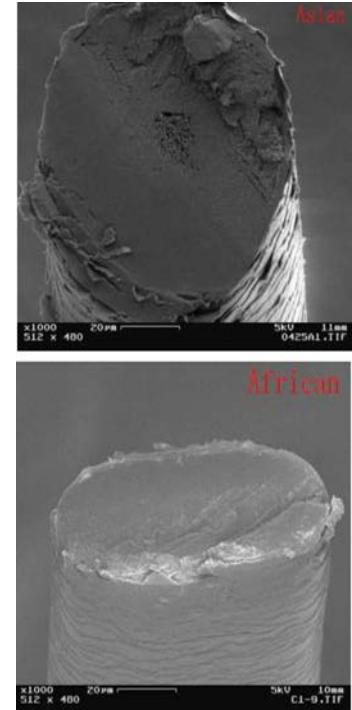
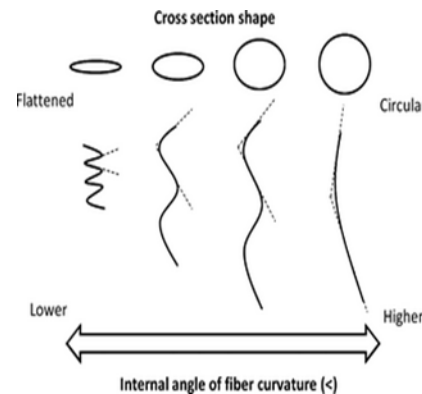
Hair Care and hair disorders in skin of color

- Hair appearance and style play an important role
- Styling practices are determined by individual hair characteristics and preferences
 - Current and historic trends
 - Ease and convenience of styling
 - Climate/season, occupation or activities
 - Health and maintenance of hair



Hair phenotype

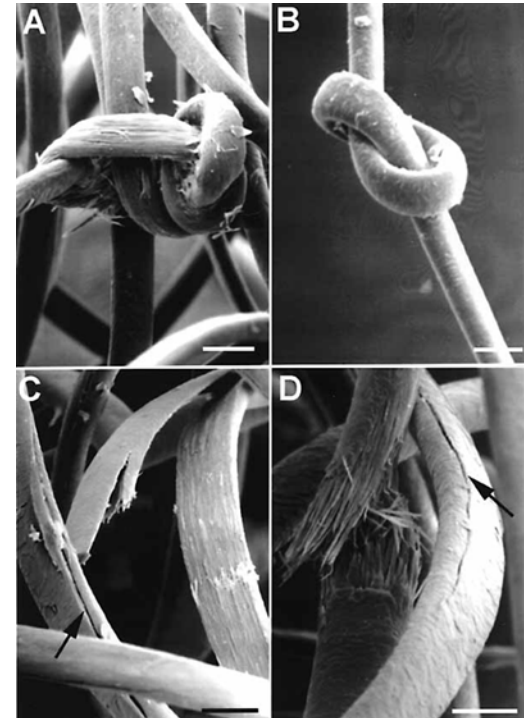
- Evaluation of hair among different ethnic groups demonstrate no biochemical differences
- Structural differences do however exist
 - Elliptical cross section shape
 - Hair follicle forms tight curls



<http://mathildasanthropologyblog>

Properties of Afro-ethnic hair

- Afro-ethnic hair
 - Easily forms knots
 - More likely to break
 - Develops frayed tips
 - Lower water content
 - Lower amounts of sebum (natural protective oils)



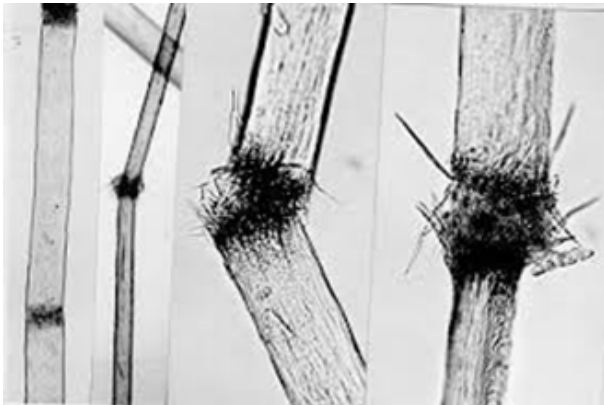
Heat treatment/Thermal straightening

- “Pressing”, “Press” or “Hot combing”
- Thermal manipulation of the hair unit temporarily disrupts the hydrogen bonds of keratin (keratin hydrolysis)
- Heating devices: hot comb, hot iron, flat iron, curling iron
- Heating element: stainless steel, ceramic, titanium
- Reaches temperatures of 150 – 500°C
- Hair reverts back to native state with water or humidity



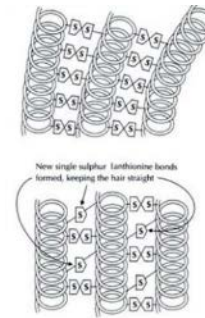
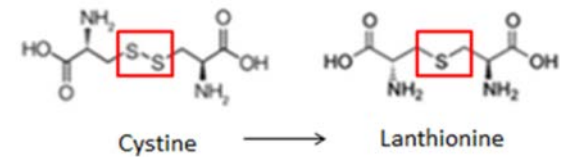
Heat treatment/Thermal straightening

- Increases dryness
- Bubble formation
- Weak points
- Split ends
- Hair breakage



Chemical hair straightening

- Chemical straightening/'relaxing' of the hair unit permanently alters the disulphide bonds of keratin
- Achieved through alkaline based products:
 - Lye-based versus non-lye straighteners
- Alkaline pH allows penetration of chemical straightener through the hair cuticle into cortex



Chemical hair straightening

- Chemical relaxing
 - Loss of tensile strength of the hair shaft
 - Increased fragility of the hair shaft
 - Scalp contact irritation
 - Scalp chemical burns
 - Possibly scarring hair loss

Hair styling practices

- Braiding



- Cornrows



- Twists



- Locks



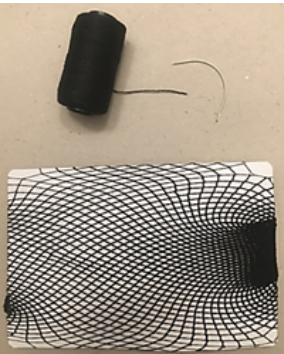
Hair styling practices

- Hair extensions
 - Human hair
 - Synthetic hair
- Extensions can be clipped, pinned, crocheted, cornrowed or braided into hair for added length/body



Hair styling practices

- Hair extensions and weaves



Natural Hair

- Refers to hair that has not been chemically treated
- Increasing in popularity over the last decade
- Transitioning from chemically treated to natural hair:
 - “Big chop” refers to cutting off all chemically treated hair
 - Simply growing out chemically treated hair
 - “Protective styling” (e.g. braids, weaves, extensions)



Preserving Hair Styles

■ Hair wrapping



■ Pin Curling



■ Pineapple



Exercise and hair care

- African-American women are **least likely** to meet recommended physical activity guidelines
 - ~40% report avoiding exercise at times due to hair style
- Increasing self-efficacy to restyle hair after perspiration may help to overcome this barrier:
 - Ponytail, locks, cornrows, braids or natural hairstyles
 - Scarf or hair wrap



Traction alopecia

- Traction alopecia is caused by repeated pulling on the hair
- Presentation
 - Raised bumps around hair
 - Hair thinning in areas of tension
 - When identified early, the styling can be modified and hair will regrow
- Over time, traction alopecia can lead to scarring and become irreversible



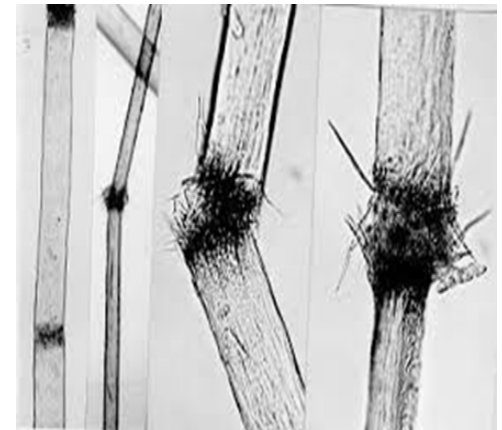
Seborrheic Dermatitis

- Chronic inflammatory scalp condition
 - Occurs on the scalp, face, & chest
 - Hypopigmented, hyperpigmented or erythematous plaques
- Risk factors
 - Decreased frequency of hair washing
 - Build up of hair products on the scalp
 - Oils on the scalp can mask the scaling



Hair fragility

- Acquired trichorrhexis nodosa
 - Response of the hair shaft to extrinsic or environmental insults
 - Results in hair breakage or lack of growth
 - Because hair is non-living tissue, total repair of the hair shaft is not possible
 - Management of this form of hair loss involves protecting the hair shaft and minimizing further damage



Central centrifugal cicatricial alopecia (CCCA)

- Chronic, progressive scarring alopecia
- Centered on the crown or vertex
- Gradually expands symmetrically with the most active disease at the periphery
- Some patients complain of itching or burning
- Most commonly seen in women of African descent



Cultural practices

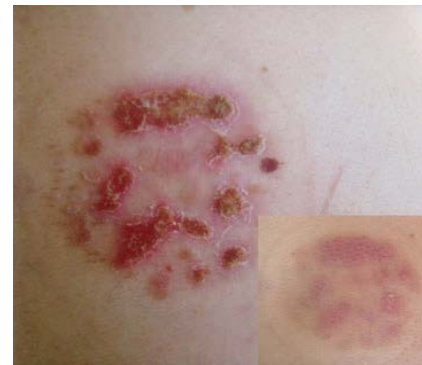
Coin rubbing & Spooning

- Repeated pressured strokes over lubricated skin
 - Petechiae
 - Ecchymoses
 - Linear distribution
 - Contact dermatitis



Cupping

- Therapeutic application of heated cups to the skin
 - Circular erythema, edema, ecchymoses & purpura.
 - Burns
 - Keloids
 - Suction bullae
 - Mistaken for physical abuse



Moxibustion

- Practice of burning dried moxa
 - Circular burns
 - Mimic signs of physical abuse



Henna tattoo

- Temporary ornamental tattoo
 - Many henna tattoos use “black henna,” a mixture that contains paraphenylenediamine (PPD)
 - Allergic contact dermatitis
 - Postinflammatory skin changes
 - Leukoderma
 - Scarring and Keloid formation



Prayer marks/nodules

- Frictional dermatoses secondary to repeated pressure



Medication & procedural considerations

Medication considerations

- Medication vehicle
 - Ointments versus creams
 - Oils versus solutions
 - Alcohol-based solutions can be drying to hair and not conducive with hairstyling practices
 - Shampoos
 - Sunscreen



Medication considerations

- Caution when prescribing topical medications that can cause irritation or pigmentary changes
 - Topical acne meds
 - Consider prescribing medications that can help with hyperpigmentation



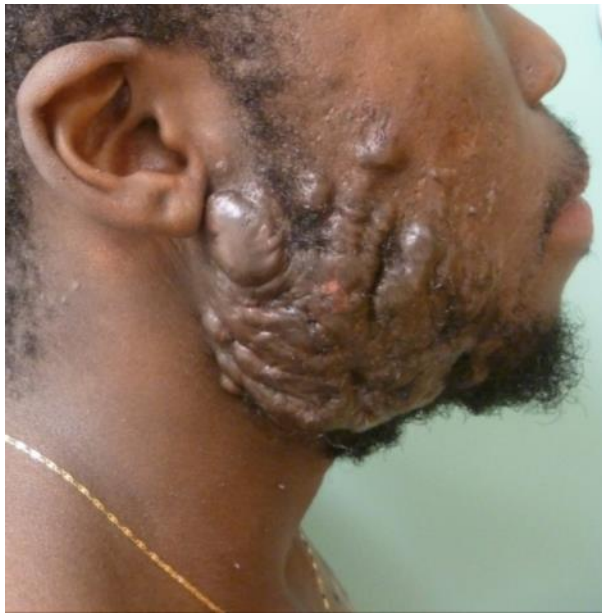
Medication considerations

- Counsel regarding pigmentary risk of medications (e.g. intralesional steroids)



Medication considerations

- Aggressive control of cutaneous disease to reduce sequelae (e.g. PIH, keloids)



Procedural considerations

- Cryotherapy
 - Sensitivity of cell types to cold-induced injury
 - Melanocytes (-4 to -7°C)
 - Keratinocytes (-20 to -30°C)
 - Fibroblasts (-30 to -35°C)





Surgery/procedures in skin of color

- Obtain pre-op history
 - History of keloids (avoid trauma resulting from voluntary or elective procedures)
 - Smoking
- Surgery
 - Minimize tension on surgical wound closures
 - Use sutures with low tissue reactivity
 - Suture removal as early as possible

Surgery/procedures in skin of color

- Reducing post-inflammatory hyperpigmentation
 - Extensive pre-, intra- and post-operative counseling
 - Keep area covered until completely healed
 - Sun protection with sunscreen (containing physical blocker) and protective clothing
 - Consideration for postponing elective procedures until fall/winter
 - Cool compress to reduce inflammation
 - Post-op treatment with hydroquinone

Keloid surgery



Acne Keloidalis Nuchae (AKN)

- Medical and surgical management



Surgical management of AKN



Surgical management of AKN



Lasers

- Lasers
 - Melanin in the epidermis competes as a chromophore for the laser light



Laser hair removal in skin of color

- Complications
 - Dyschromia (hyperpigmentation and hypopigmentation)
 - Paradoxical hypertrichosis



Questions?

