Dermatological Considerations in Skin of Colour

November 23rd, 2024

Presented by: Ravina Sanghera
2024-11-23

Canadian Pharmacists Association
Association des pharmaciens du Canada

Thank you for the invitation!

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- Disclosures: None

Bias Mitigation

- We have a lot of work to do on this topic…

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Learner Outcomes

- At the end of this session, the learner will be able to:
  - Describe unique features of dermatological conditions with a higher prevalence in patients with skin of colour
  - Integrate preventative and treatment strategies to effectively and safely manage dermatological conditions in patients with skin of colour

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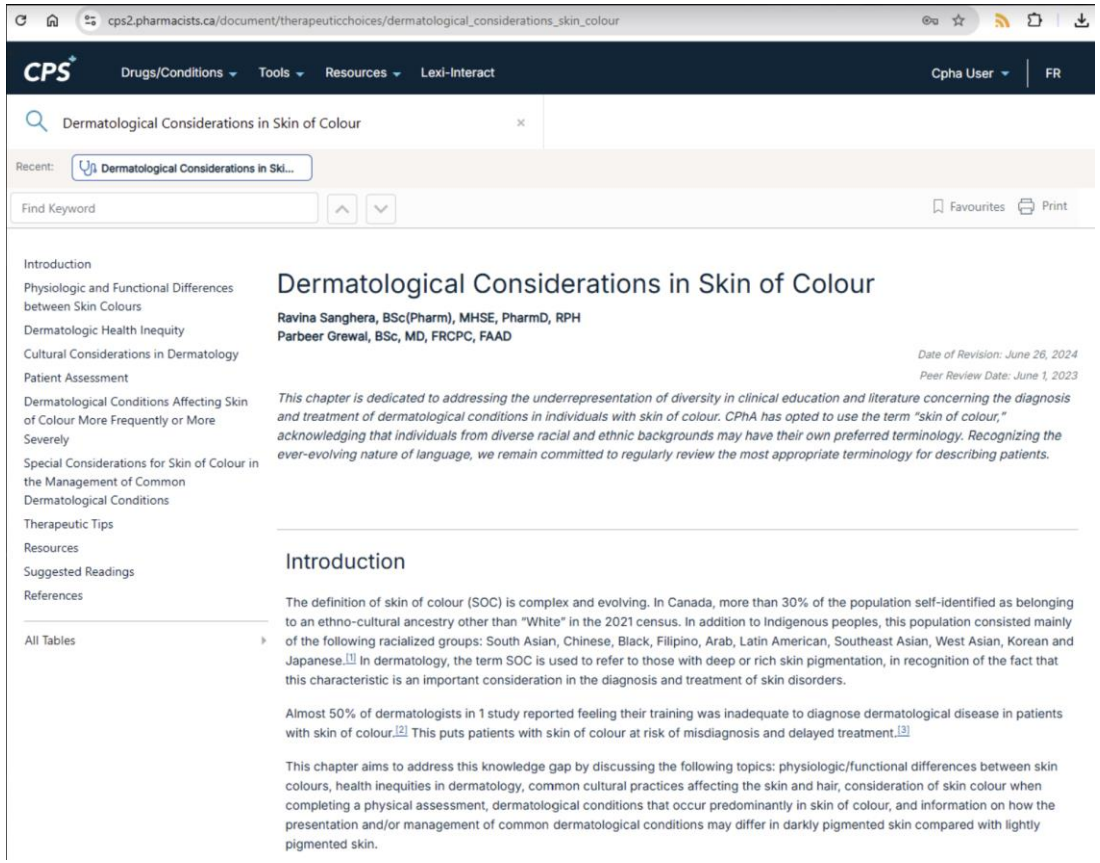
For more information…

- "Dermatological Considerations in Skin of Colour" chapter on cps.pharmacists.ca



Outline of Presentation

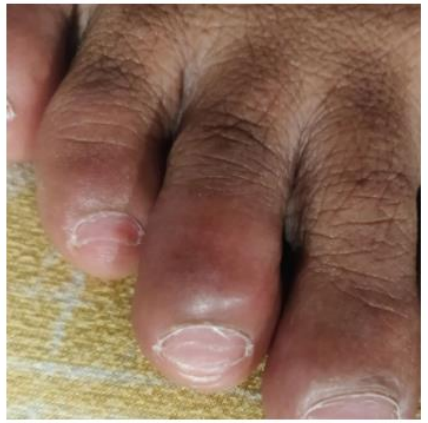
- General Principles for Assessment
- Unique Differences in Skin Conditions
  - Variation in Dermatological Presentation
  - Conditions of Higher Prevalence in Skin of Colour
  - Presentation/Complications of Cultural Practices affecting the Skin and Hair
- Therapeutic Considerations
  - Care Plan Development
- Resources for Health Care Professionals

Dermatologic Health Inequity

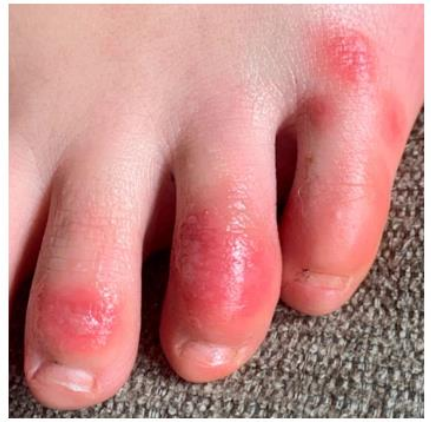
The New York Times

Dermatology Has a Problem With Skin Color

Common conditions often manifest differently on dark skin. Yet physicians are trained mostly to diagnose them on white skin.



A patient of Southeast Asian descent with so-called Covid toe …



… and the same condition on a white teenager.
Northwestern University, via Associated Press

Reference: Rabin, R. NY Times. Available at: https://www.nytimes.com/2020/08/30/health/skin-diseases-black-hispanic.html

Dermatologic Health Inequity

- The definition of skin of colour (SoC) is complex and evolving.
  - In dermatology, the term SoC is used to refer to those with deep or rich skin pigmentation, in recognition of the fact that this characteristic is an important consideration in the diagnosis and treatment of skin disorders.

Dermatologic Health Inequity

- Following factors play a role in creating dermatology related health inequity in racialized populations:
  - Lack of high-quality evidence on treatment in racialized groups
  - Lack of healthcare provider education on diagnosis and management
  - Dermatology scoring tools (e.g. SCORAD, EASI) underestimating disease severity in skin of colour
  - Inequity in the environmental and social determinants disproportionately equity deserving groups
  - Reluctance to seek help or mistrust of healthcare providers
  - Limited access to dermatological care

Physiologic & Functional Differences

Physiologic & Functional Differences

- Melanin
  - Variation in pigmentation is attributed primarily to the proportion of eumelanin to pheomelanin; the total amount of melanin produced; and the number, size and distribution of melanosomes.

Physiological & Functional Differences

- Skin barrier function
  - May vary across racial and ethnic categories, though evidence is limited and inconsistent; definitive conclusions have not been made.
- Hair follicles
  - Limited studies on hair follicles have shown large variation in the curl pattern, cuticle layers, and growth rate of hair between and within different racial and ethnic groups.

General Principles for Physical Assessment

Providing Inclusive Care

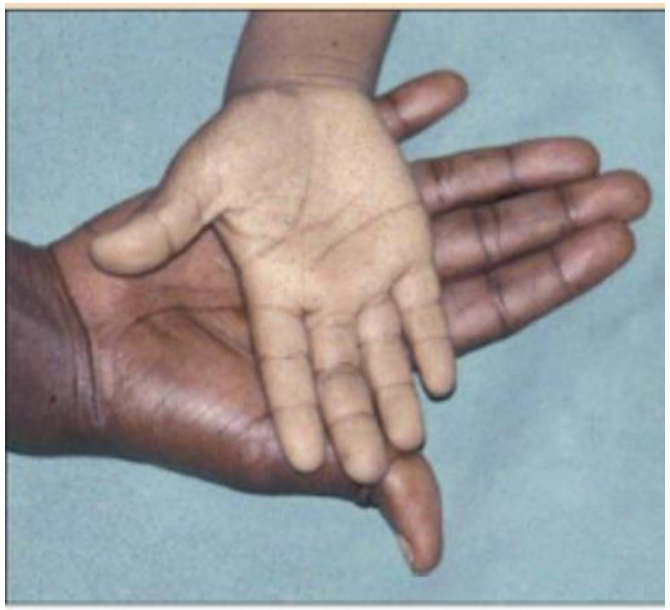
- Keep language respectful, neutral and professional
  - Avoid terms (e.g., “darker”) that imply white is the normal or baseline skin colour
- Do not equate skin colour with ethnicity
  - E.g., Not all Black people have darkly pigmented skin
- Ask for the patient’s perspective including their thoughts and feelings about their skin condition
  - It’s OK to discuss skin colour!

Providing Inclusive Care

- Respect the patient's individual cultural beliefs
  - Some cultures may mistrust established healthcare systems, especially if they have had negative experiences in the past
  - Ask about hair and skin care routines
  - Ask about alternative and traditional medications and health practices

Dermatological Assessment

- Pallor
  - Pale appearance of skin due to reduced oxyhemoglobin levels.
  - Identify:
    - Skin colour may present as ashen, grey or yellowish in darkly pigmented skin
    - Reduced darkness in palmar creases
    - Possibly compare to family member if similar in color (variable reliability)



Mukwende & et al, 2020

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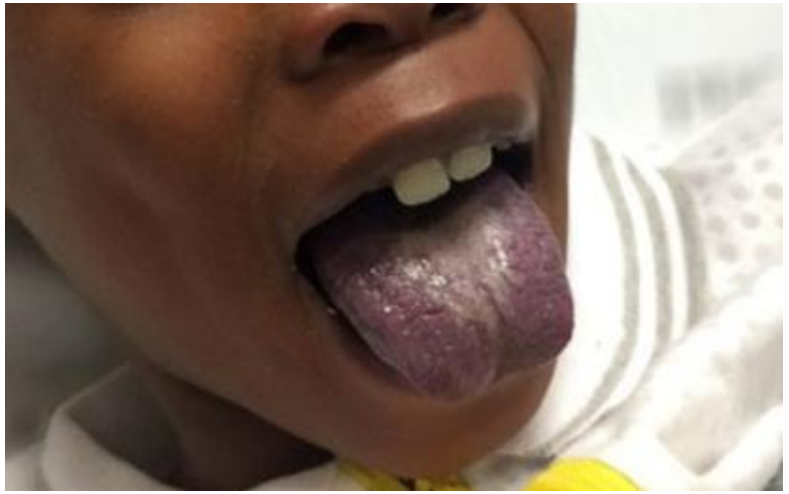
Dermatological Assessment

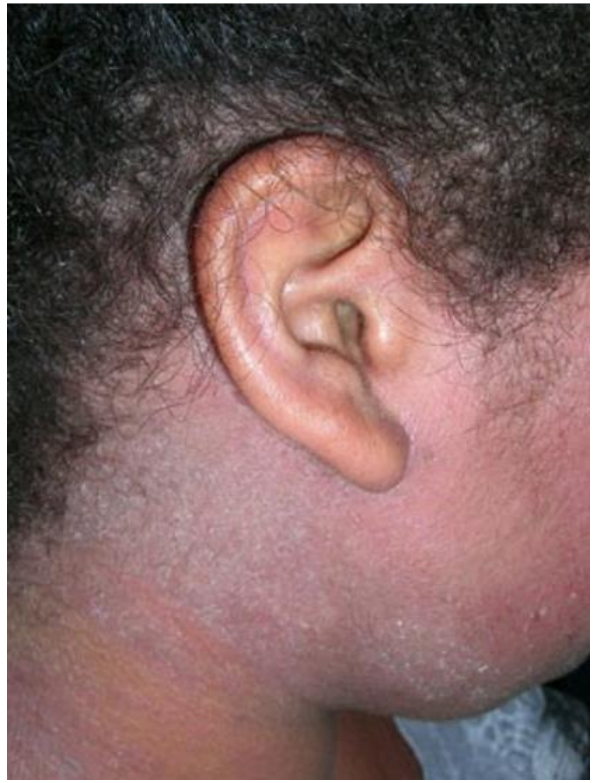
- Cyanosis
  - “Blue or grey” discoloration of skin due to deoxygenated hemoglobin.
  - Harder to detect in dark skin if looking at hands and feet.
  - Identify:
    - Look for the absence of healthy pink tones in areas where skin is thin, and has high vasculature (i.e. lips) or mucous membranes (buccal, SL)
    - May be described as bluish tint to palms or conjunctiva; greyish-white colour around tongue or lips; maroon tinge to nail beds
    - Patients with naturally yellow-toned skin: general grayish-green appearance to skin



Mukwende & et al, 2020

Dermatological Assessment

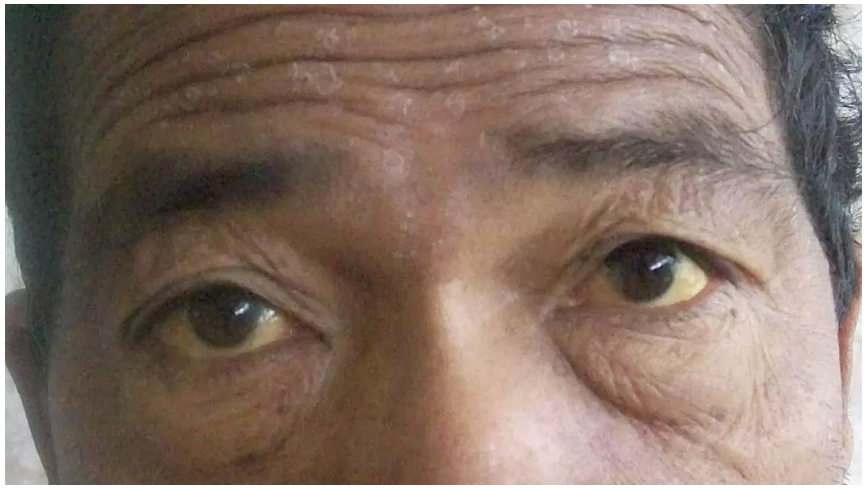
- Erythema
  - Redness to the skin due to inflammation, infection. Erythema may not always be apparent in dark skin – this leads to under treatment!
  - Identify:
    - In SoC will have a burgundy/purple undertone
    - Inquire about other signs and symptoms that may be indicators of inflammation/infection:
      - Pain, burning, itching, increased warmth of the skin area, swelling (appearing as smooth, shiny or tight skin), scaling, crusting, erosions and general malaise



Mukwende & et al, 2020

Dermatological Assessment

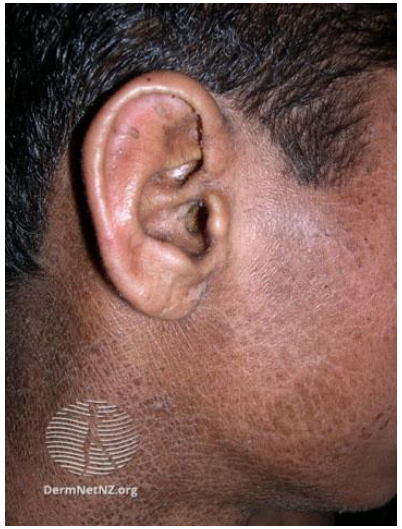
- Jaundice
  - Yellow discolouration of the skin and soft tissues due to hyperbilirubinemia.
  - Identify:
    - In dark skin, yellow hue may be subtle
    - Eye signs are more obvious (whites of the eyes appear yellow)

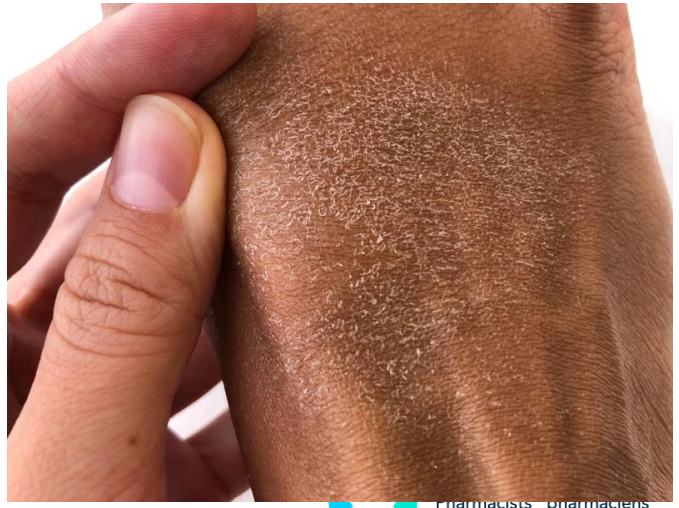


Mukwende & et al, 2020

Dermatological Assessment

- Ichthyosis
  - Widespread scaling of skin, most often due to xerosis or atopic dermatitis
  - Identify:
    - In dark skin, hyperpigmentation and thickening may be present
    - Cracks between scales appear lighter
    - “Fish scale” like appearance to skin

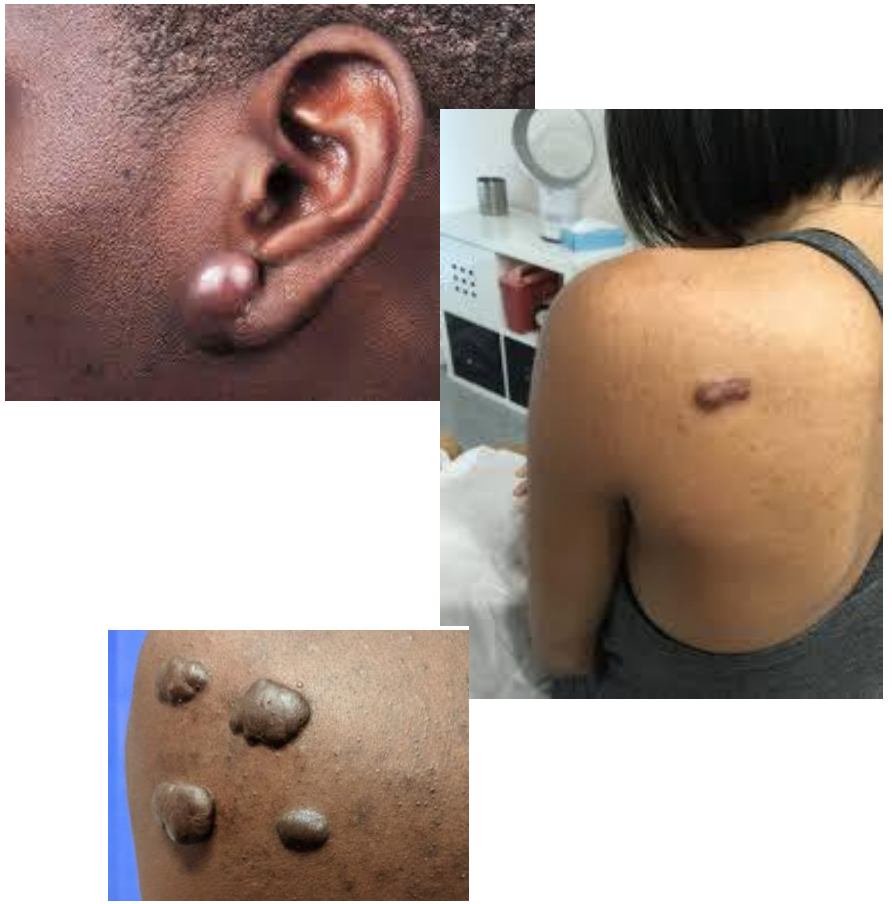




https://dermnetnz.org/topics/ichthyosis

Dermatological Assessment

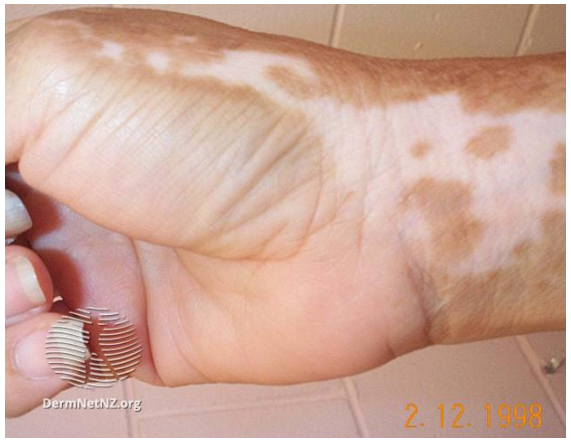
- Keloid Scarring
  - Thick, enlarged scars which are bigger than the original wound
  - More common in people with dark skin
  - Can occur from minor injury or spontaneously
  - Identify:
    - Raised, firm to touch, hairless appearance and will be similar in colour or more pigmented than surrounding skin
    - Common location: earlobes, cheeks, upper chest

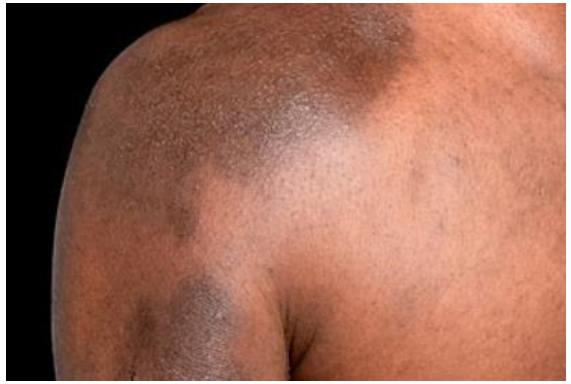


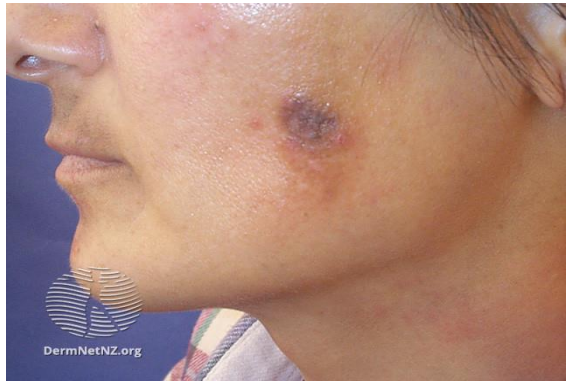
Mukwende & et al, 2020

Dermatological Assessment

- Post inflammatory hypo – or hyper - Pigmentation
  - Due to increased type of melanin from melanocytes which are more reactive, signs of hypo - or hyperpigmentation are the only indicators of an underlying dermatological condition
  - Identify:
    - Look for discolouration of surrounding skin, ask about symptoms experienced as part of history (trauma to skin, itch)

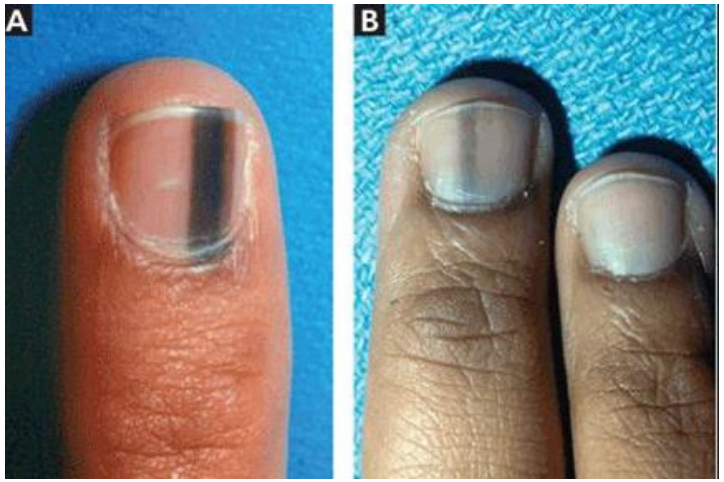






Dermatological Assessment of Nails

- Melanonychia (Pigmented Nail Bands)
  - Pigmented line that runs vertically along the nail
  - Caused by deposition of melanin from melanocytes in the proximal nail matrix (benign)
  - Normal variant in 90% of Black people
  - Can be mistaken for melanoma and vice versa
  - Identify (Melanonychia):
    - Thin, very light, even and uniform line
    - No lumps or bumps
    - Does not extend to proximal nail fold as seen with melanoma (left image)



Melanoma Melanonychia

Mukwende & et al, 2020

Variation in Presentation of Common Community Dermatological Conditions

Variation in Dermatological Presentation

- Tinea Capitis
- Atopic Dermatitis
- Acne
- Psoriasis
- Skin Cancer

Kundu & Patterson, 2013

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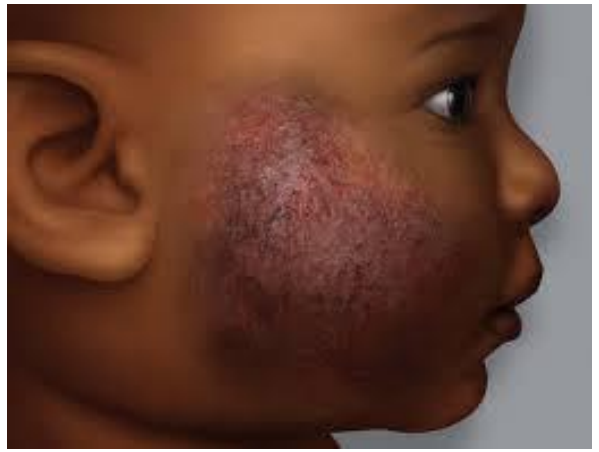
Variation in Dermatological Presentation

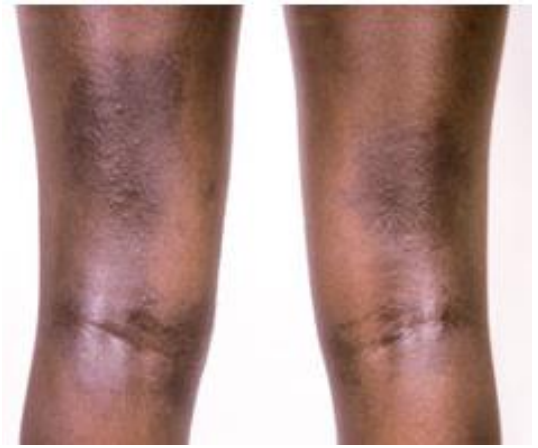
- Tinea Capitis
  - Tinea capitis (TC) is an infection affecting patients of color disproportionately in the United States, especially Black and Latin descent children
  - Confused with seborrheic dermatitis often
  - Hairs may become brittle
  - Skin will appear dry and flaky
  - Default to referring a child who presents with scaling

Mukwende & et al, 2020

Variation in Dermatological Presentation

- Atopic Dermatitis
  - Less erythema, more violaceous-greyish hue [and] hypo- or hyperpigmentation may actually be the main indicators
  - Location in dark skin typical on extensors vs. flexor
  - Presence of follicular accentuation
  - Lichenification (skin thickening with exaggerated skin lines) is more common in SoC than in lightly pigmented skin





Kundu & Patterson, 2013
Joseph M., Skin Spectrum 2021

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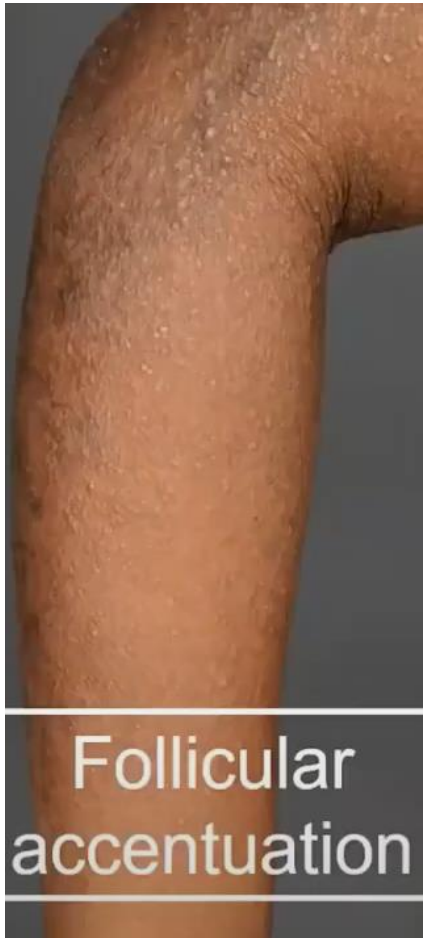
Variation in Dermatological Presentation



Marcoux, D., Skin Spectrum 2021

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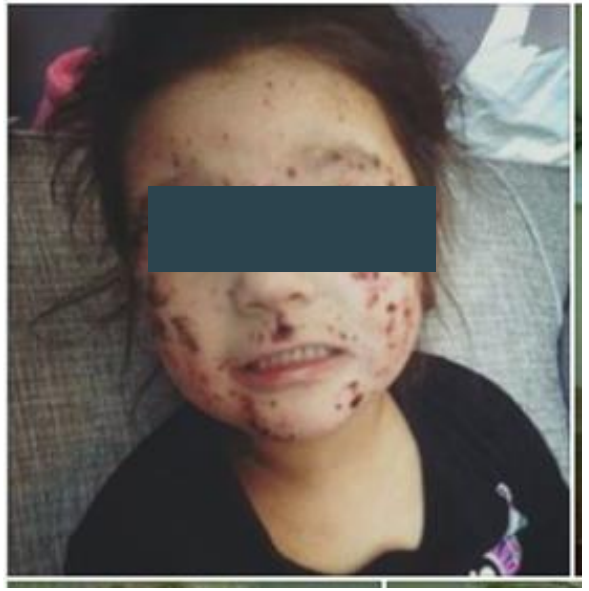
Variation in Dermatological Presentation

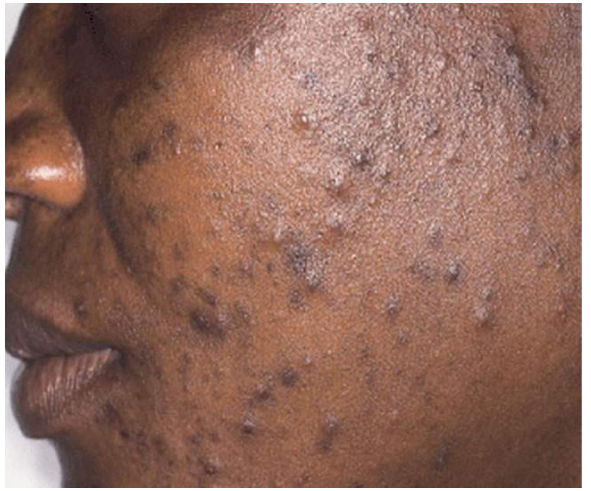
- Atopic Dermatitis
  - Ontario Region Report on the Adult, Youth and Children Living in First Nations Communities
    - 10.4 % of children reported atopic dermatitis
    - Mean age of diagnosis is 5 years of age
    - Top reason why treatment was sought
- Lesions are often colonized and require anti-infectives
  - Antibiotic use among twelve Canadian First Nations communities: a retrospective chart review
    - 60% - >1 antibiotic due to skin or soft tissue infection
    - This study has identified a high prevalence of antibiotic use and SSTIs due to CA-MRSA in remote and isolated Indigenous communities across Canada

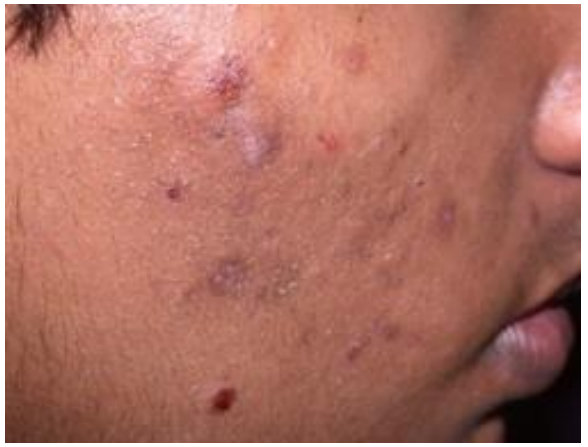


Asiniwasis, R., Indigenous Skin Spectrum Summit, 2021

Variation in Dermatological Presentation

- Acne
  - Sequelae of postinflammatory hyperpigmentation, keloids, and scarring are common
  - Use of skin and hair products may exacerbate acne (pomade acne)
  - Patients may present with post-inflammatory hyperpigmentation brought on by months of harsh cleansing routines
  - Try to avoid inflammation from topical products, start low and go slow!





Kundu & Patterson, 2013

Variation in Dermatological Presentation

- Psoriasis
  - Patient usually present to clinic with more severe disease
  - Higher DLQI scores at baseline
  - Plaques may look a little more purple or violaceous than red or the typical “silver plaque”.
  - More post hypo- or hyper- pigmentation
  - More scalp psoriasis tends to be more severe in Black and Brown patients (misdiagnosed as seborrhea) and Asian patients

Nicholas et al, 2020
Miller-Monthrope, Y., Skin Spectrum Summit 2021

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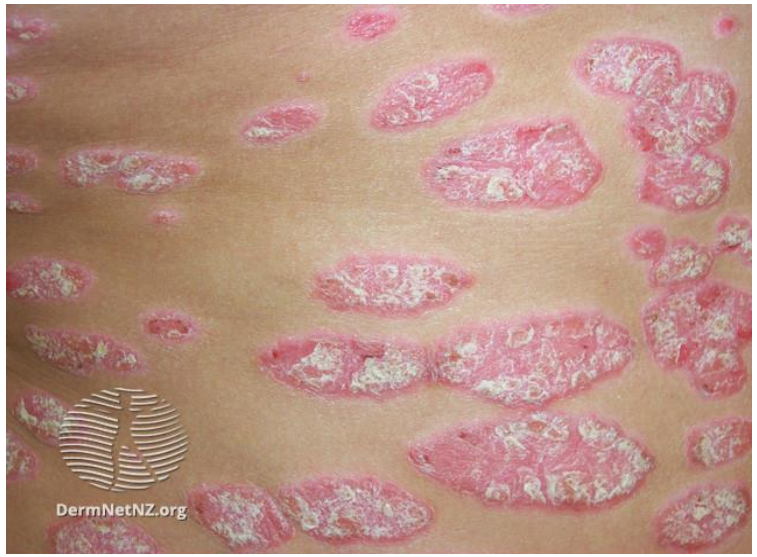
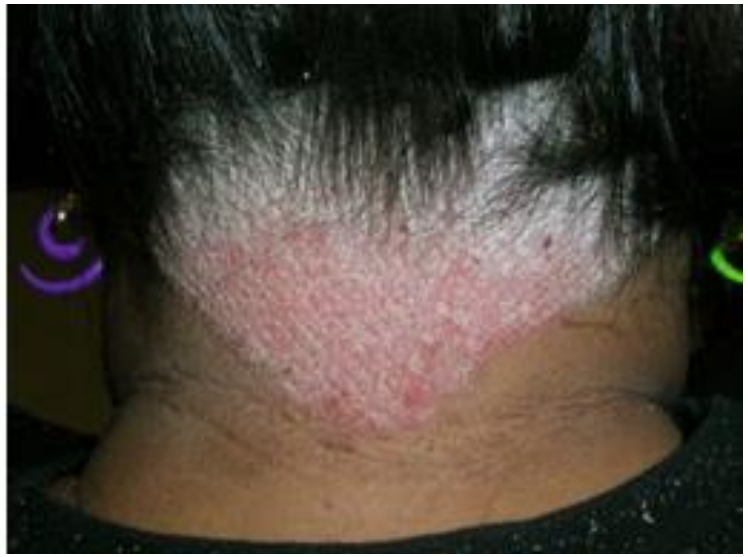
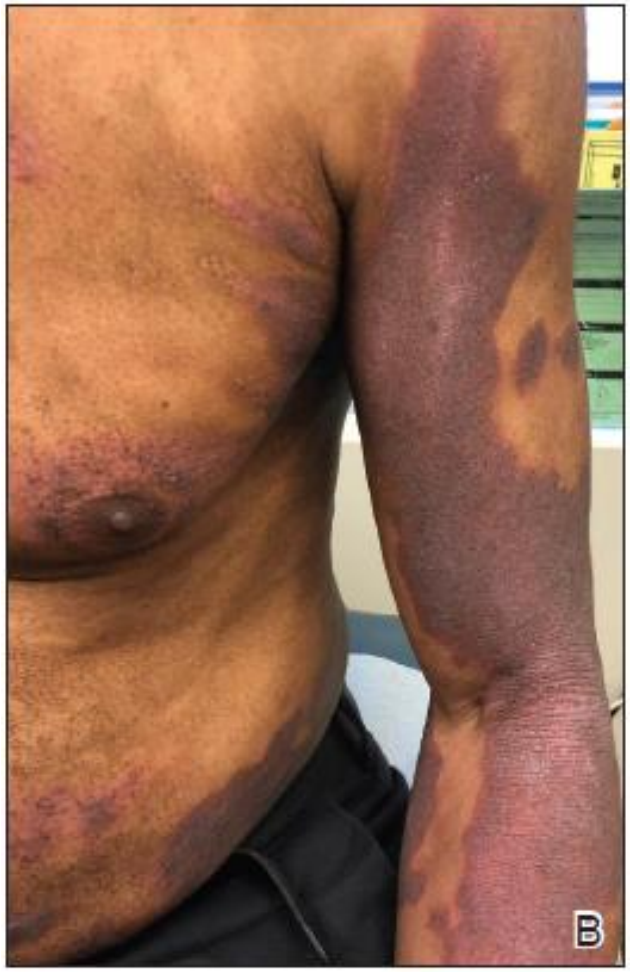
Violaceous Plaque



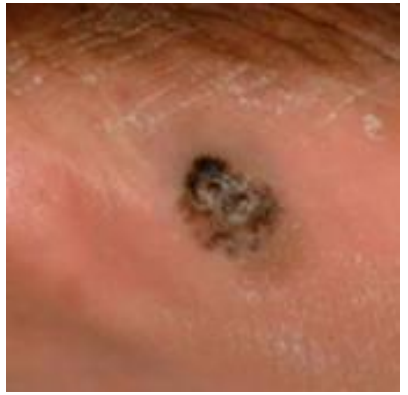




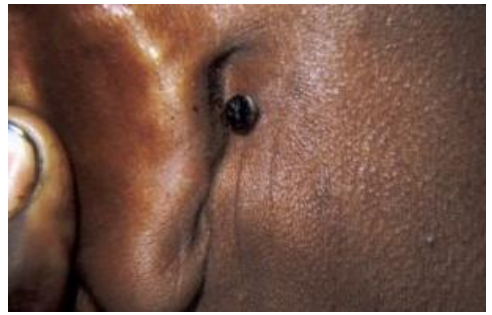
Nicholas, Chan, Hessami - Boosherni 2020

Skin Cancer

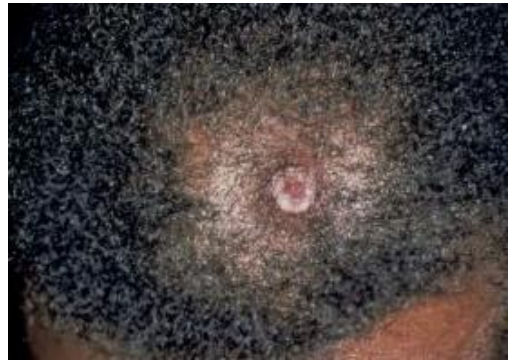
- Actinic keratosis (AK) – a common sun-induced lesion that can progress to a cancerous lesion (squamous cell carcinoma)
- Keratinocyte skin cancer – may appear as abnormal scaling that bleeds or erodes over time as “pimples” that do not heal and may develop ulcerations (squamous cell carcinoma (SCC) and basal cell carcinoma (BCC))
- Melanoma skin cancer – rare but deadly, often presenting as flat brown or black spots (moles) that change over time



Acral lentiginous melanoma
bottom of foot



Pigmented BCC behind the ear



SCC on scalp

Alexis, A., Skin Spectrum Summit 2021, https://dermnetnz.org/topics

Sun-Induced Skin Damage

Practice Tip: Lesions in dark skin phenotypes may be darker in colour than surrounding skin or the same colour. Default to being suspicious. Refer if lesion is crusted over, changing and/or does not heal. A lot of these cancers can appear in non-sun exposed areas (palms and soles), and mucosal membranes. Remember to examine these areas!

Alexis, A., Skin Spectrum Summit 2021

Conditions of Higher Prevalence in Skin of Colour

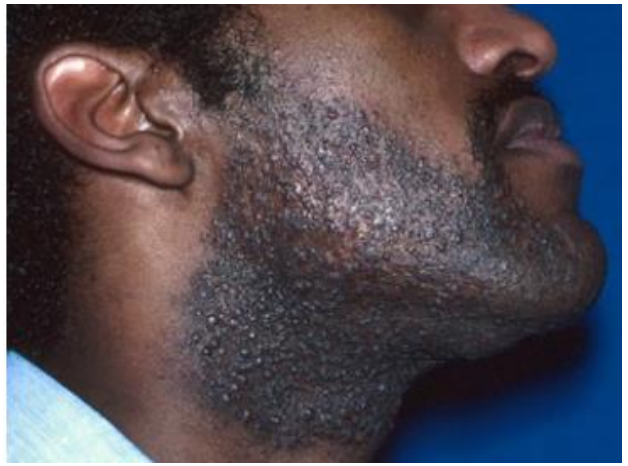
Conditions of Higher Prevalence/Impact in Skin of Colour

- Pseudofolliculitis Barbae
- Acne Keloidalis Nuchae
- Actinic Prurigo
- Melasma
- Vitiligo
- Traction Alopecia

Kundu & Patterson, 2013

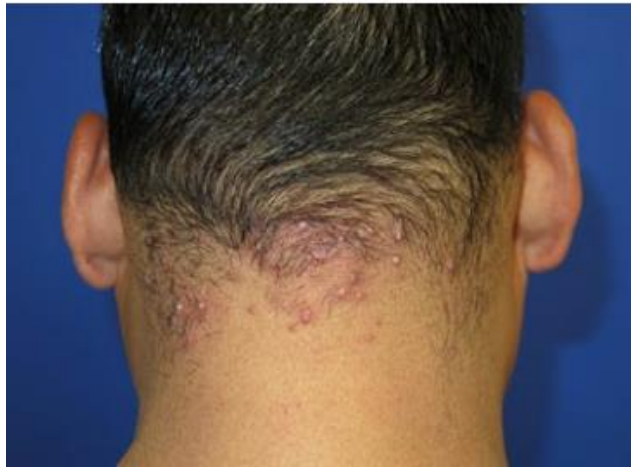
Conditions of Higher Prevalence in Skin of Colour

- Pseudofolliculitis Barbae “razor bumps”
  - “Erythematous” and hyperpigmented
  - Papules and pustules after shaving or plucking (tightly curled hair)
  - Can be painful and tender, secondary infection possibly
  - Treatment:
    - Topical steroids, benzoyl peroxide, topical retinoids, and topical antibiotics (infection)
    - Changing hair removal techniques such as suggesting clippers, single blade razor, avoid plucking



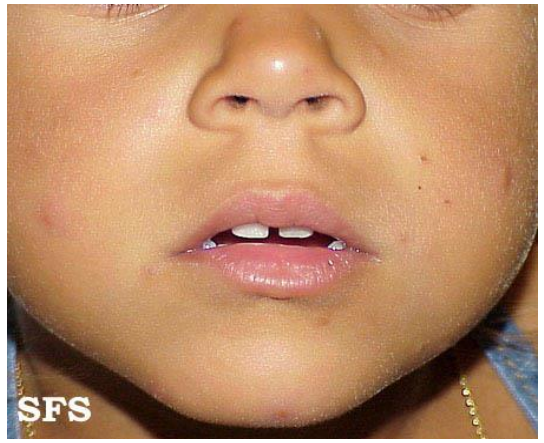
Conditions of Higher Prevalence in Skin of Colour

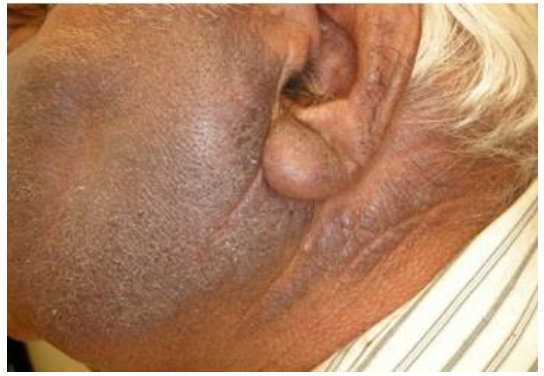
- Acne Keloidalis Nuchae
  - Tender papules, pustules and plaques on posterior of scalp
  - Unknown etiology
  - Results in hair loss
  - Treatment:
    - Avoid friction in area
    - Topical antibiotics, potent topical steroids, oral antibiotics for s/s of infection, laser, surgical excision



Conditions of Higher Prevalence in Skin of Colour

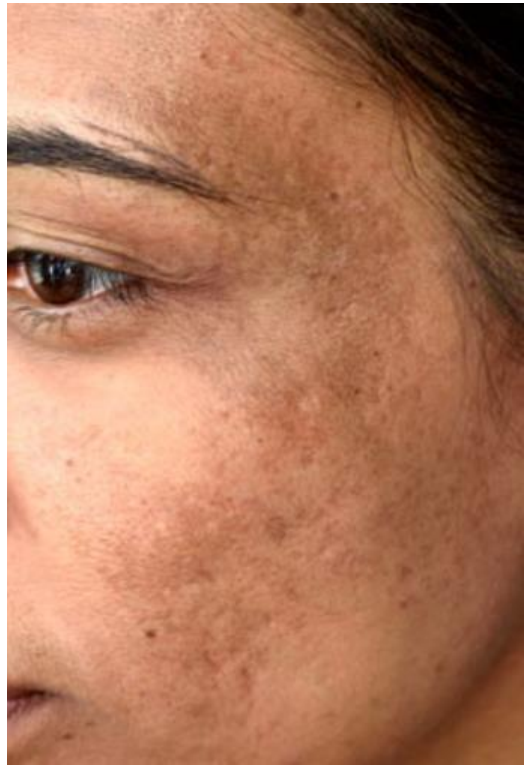
- Actinic Prurigo
  - Prevalent in Indigenous population
  - Likely due to genetic variation in HLADR4, DRB1*0407 gene and UV exposure
  - Commonly arises in childhood
  - Worse in summer, but can be present year-round
  - Sun-exposed sites develop eczematous eruptions, crusting, hemorrhage and pitted scars
  - Can also develop conjunctivitis and cheilitis
  - Treatment:
    - Sun protection, topical corticosteroids, calcineurin inhibitors, antimalarials, azathioprine, cyclosporine





Conditions of Higher Prevalence in Skin of Colour

- Melasma
  - People with SoC are at elevated risk of developing melasma
  - Distribution is usually bilaterally on face (cheeks, forehead, upper
  - lip)
  - Risk factors include:
    - Female sex, sun exposure, hormonal changes due to pregnancy or oral contraceptives
  - Sun protection year-round is critical:
    - Sunscreen must be a high SPF value, at least 30, and must be broad-spectrum, covering both UVA, UVB and preferably visible light
      - Zinc, titanium, and iron oxide will block visible light



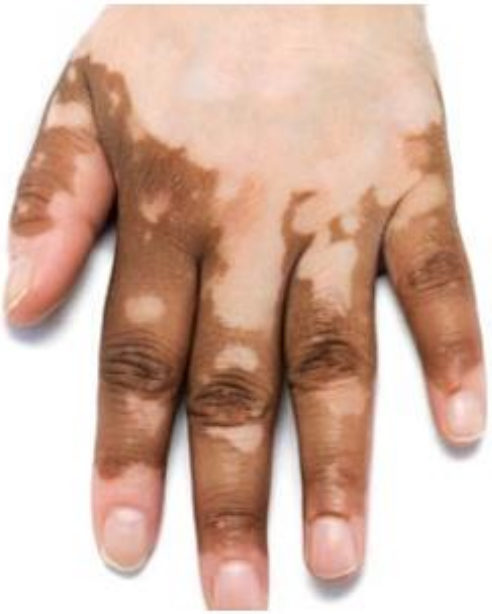
Rivers, J., Skin Spectrum Summit 2021

Conditions of Higher Prevalence in Skin of Colour

- Melasma Cont'd:
  - Treatment:
    - Hydroquinone (concentration ~4%) remains a gold standard of treatment (sometimes combined with a topical retinoid)
    - Oral or topical tranexamic acid - ensure patients do not have a history of pulmonary embolisms, deep vein thrombosis or coagulation issues
    - Azelaic acid
    - Kojic acid
    - Topical retinoids
    - Alpha arbutin (inhibits tyrosinase activity) is found in OTC products

Conditions of Higher Prevalence in Skin of Colour

- Vitiligo
  - White, depigmented patches on the skin
  - Can be solitary, segmental or widespread
  - Associated with autoimmune comorbidities
  - Mental and emotional burden is worse in patients with skin of colour
  - Treatment:
    - There is no cure for vitiligo and treatment is often unsatisfactory, goal to stop progression
    - Sun protection measures
    - Camouflage makeup
    - Topical steroids, calcineurin inhibitors
    - Newer agents such as ruxolitinib

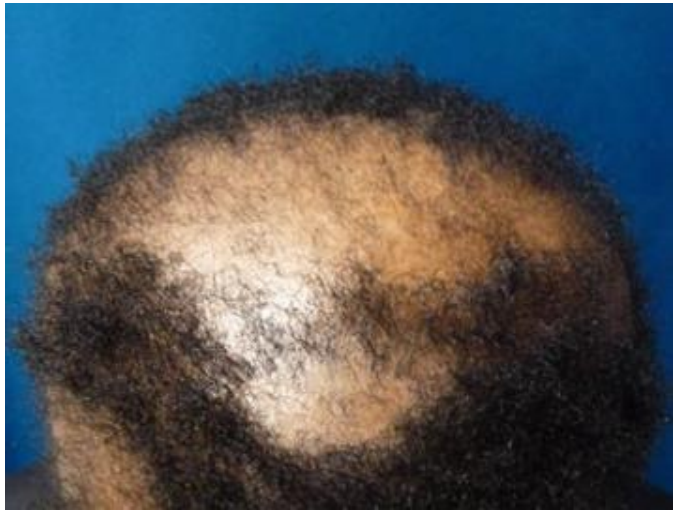


Conditions of Higher Prevalence in Skin of Colour

- Acanthosis nigricans
  - Irregularly defined, hyperpigmented, velvety patches
  - Most commonly on neck, axilla, groin
  - Treatment:
    - Manage comorbidities
    - Topical or oral retinoids, vitamin D analogies, referral for laser treatment

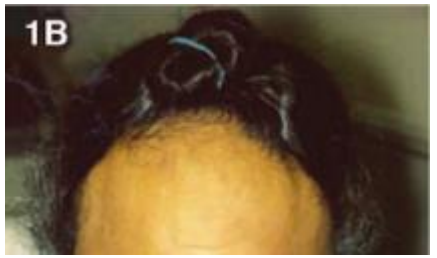
Conditions of Higher Prevalence in Skin of Colour

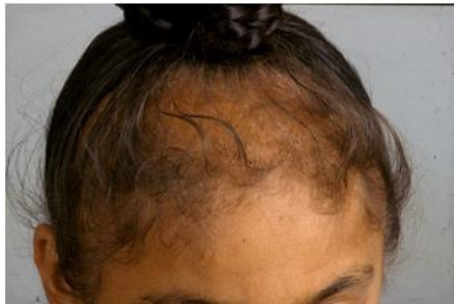
- Central centrifugal cicatricial alopecia (CCCA)
  - Permanent destruction of the hair follicle with irreversible hair loss
  - Signs of hair breakage
  - Possibly tenderness, burning, pruritus
  - Hair loss typically begins at the vertex or mid-scalp and extends outward
  - Treatment:
    - Eliminate aggressive hair practices
    - Topical or intralesional steroids
    - Oral medications (retinoids, immunosuppressants)



Conditions of Higher Prevalence in Skin of Colour

- Traction Alopecia
  - Form of acquired hair loss that results from prolonged or repetitive tension on the scalp hair
    - Chronic wearing of hair extensions, weaves, braids
    - Chemical Relaxers
    - Tightly worn head coverings
  - Mostly affects the front (frontal) and sides of the scalp, tension dependent
  - Treatment:
    - Loosen hair style or head covering
    - Avoid scalp exposure to chemicals and heat
    - Minoxidil
    - Topical or intralesional steroids
    - Hair replacement surgery





Presentation/ Complications of Cultural Practices Affecting the Skin and Hair

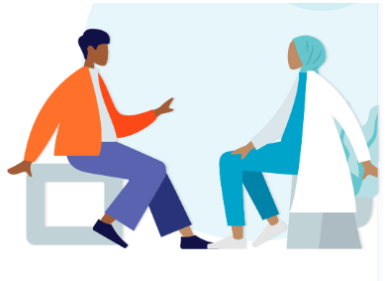
Common Cultural Practices that may Affect Hair and Skin Manifestations

- Providing inclusive care includes asking patients about therapeutic or cosmetic practices based on cultural practices
- Hair Practices
  - Hair oils/pomades
  - Hot comb
  - Hair removal with threading
- Skin Practices
  - Henna
  - Moxibustion, cupping or acupuncture
  - Chemical lightening

Care Plan Considerations and Resources for HCPs

Care Plan Pearls

- Treating early and effectively can help prevent inflammation-induced pigment changes
- Patients are often instructed to continue topical treatment until redness subsides, but this direction is not helpful to patients with deeply pigmented skin that presents without erythema
- Teach and encourage patients to perform routine skin self-examinations
  - Have patients take photos of lesions to track progression of condition
  - Support patients to seek medical attention sooner
    - Default to a high degree of suspicion of lesions



Care Plan Pearls

- Encourage sun protective measures
  - Sunscreen is encouraged for all skin types
    - Patients may be hesitant to use sunscreen because of white cast left on the skin (suggest the right product!)
    - Iron oxide sunscreen to protect from visible light (“tinted sunscreens”)
  - Encourage regular scalp, skin, and nail exams
  - Refer suspicious lesions such as lesions not healing
    - Monitor closely changing pigmented lesions on the palms and soles and hyperkeratotic or poorly healing ulcers

Care Plan Pearls

- Twice or three times weekly washing with a medicated shampoo may not be practical for textured hair as it may cause breakage due to drying agents - adjust treatment wash regimen
- Those with tightly coiled hair may prefer oil or foam based products vs. creams or liquids
- Cultural practices such as cupping and moxibustion should be inquired about as a source of skin trauma that may precipitate psoriatic lesions (Koebner Phenomenon)
- In addition to treating inflammatory disease, patients or care providers may be more concerned about pigmentary changes - address!

Care Plan Pearls

- Consider the impact pruritus is having on the condition ⟹ propagates the itch scratch, injury cycle
- Monitor PIH from the application of irritating topical agents
  - Titrate usage to overnight use
  - Applying a ceramide moisturizer to prep skin prior to applying medicated topical agents may mitigate irritation
- Consider access to pharmacologic agents:
  - Cost are inflated for skin care products in remote communities
  - For chronic conditions and limited access to pharmacy services, give “tubs not tubes”, give refills!

Additional Learning Resources

- Subscribe to Skin Spectrum weekly @ https://www.skinspectrum.ca/skin-spectrum-weekly
- Skin of Color Society: https://skinofcolorsociety.org/
- DermNet NZ @ https://dermnetnz.org/image-library
- Mind the Gap @ https://www.blackandbrownskin.co.uk/mindthegap

Knowledge Check

- Which type of melanoma is most common in skin of colour patients?
  A. Nodular
  B. Superficial melanoma
  C. Acral lentiginous melanoma
  D. Skin of colour patients do not get melanoma

Knowledge Check

- Which of the following principles is FALSE when formulating a care plan for a patient with a dark skin tone/skin of colour with moderate acne?
  A. There may be increased risk of post-inflammatory dyspigmentation that will need to be monitored.
  B. Patients with skin of colour do not need sunscreen to manage photosensitivity from oral tetracycline.
  C. When recommending a retinoid suggest titrating the use of the topical product slowly over a few days to overnight use.
  D. Monitor for keloid development in areas of dermal trauma.

Knowledge Check

- Which of the following statements is FALSE regarding dermatological assessment?
  A. Default to referring for further assessment when a child with coarse, very curly or coiled hair presents with scaling on the scalp and hair loss
  B. In those with richly pigmented skin tones, yellow hue due to jaundice may be subtle thus eye signs (sclera colour) may be more obvious.
  C. Skin cancer lesions may appear on non-sunexposed areas thus default to referring suspicious lesions on the palms and soles.
  D. Patients with skin of colour will only present with hyperpigmentation after skin inflammation.

Knowledge Check

- Which condition is incorrectly matched with the dermatological presentation?
  A. Actinic Prurigo - Type of skin cancer that presents on sun exposed areas
  B. Traction Alopecia - Acquired hair loss due to repeated tension on scalp
  C. Melasma - Brownish facial pigmentation due to increased level of melanin
  D. Acne Keloidalis Nuchae - Tender papules and pustules on posterior scalp

Thank you

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