NON-STD DERMATOLOGICAL MANIFESTATIONS

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By the end of the lecture, the participant should be familiar with:

- Commonly used dermatological terms
- Common dermatological conditions seen in STD Clinics

Outline

- Dermatology language
- Genital anatomy
- Categories of lesions
- Dermatological conditions seen in the STD clinic
Not all individuals presenting to STD Clinics have STDs. Consider other causes for symptoms.

History and examination are important in diagnosing non-STD genital findings.

- How long has it been present?
- What have you been doing to the skin in that area?
- Do you have any skin trouble anywhere else?
- Does this this look like an STD?
- Has this person been treated for STDs? Did it help?

Know your limitations: Ask and Refer
Symptoms perceived to be an STD

- Drips
- Discharge
- Dysuria
- Pain
- Redness
- Ulcers
- Bumps

"I have spots on my head where hair won’t grow."
"I have a bump on my arm that hurts."
"I have painful sores on my back. I was told it was herpes."
**Macule**

area of color change
<1.5cm, nonpalpable

From: www.acponline.org

From: www.merck.com

**Patch**

area of color change
>1.5cm, nonpalpable

From: www.dermatology.edlib.org

From: www.missinglink.ucsf.edu

From: www.dermube.ca

From: www.visualdxhealth.com
**Papule**
area of elevation
<1.0cm, palpable

**Plaque**
area of elevation
>1.0cm, palpable
Nodule

papule/plaque with deeper extension into the skin
**Vesicle**
blister <1.0cm

**Pustule**
pus-filled vesicle

**Bulla**
blister >1.0cm
**Erosion**
shallow skin defect

**Ulcer**
deep skin defect

From: www.missinglink.ucsf.edu

From: mdconsult.com
**Crust**
amorphous accumulation of dried serum, blood or pus

**Scale**
abnormal shedding or accumulation of cornified cells
Female Genital Anatomy

From www.glowm.com Michael Hughey, MD.
1. Testicles
2. Epididymis
3. Corpus cavernosa
4. Foreskin
5. Frenulum
6. Urethral opening
7. Glans penis
8. Corpus spongiosum
9. Penis/Shaft
10. Scrotum
Categories of Lesions

- Red Plaques and Patches
- Red Papules and Nodules
- Yellow and Pustular Lesions
- Erosive and Vesiculobullous Diseases
- Ulcers
- White Lesions
- Skin-Colored Lesions
- Brown Lesions
Red Plaques and Patches

- Atopic Dermatitis, Eczema, and Lichen Simplex Chronicus
- Irritant Contact Dermatitis
- Allergic Contact Dermatitis
- Seborrheic Dermatitis
- Psoriasis
- Tinea Cruris
- Erythrasma
- Candidiasis
- Perianal Streptococcal Disease
- Lichen Planus
- Plasma Cell Mucositis
- Extramammary Page’s Disease
- Bowen’s Disease
- Vulvar Vistibilitis
- Dysesthetic Vulvodynia
- Red Scrotum Syndrome

Red Papules and Nodules

- Angiokeratoma
- Cherry Angioma
- Varicosity
- Cutaneous Vulvar endometriosis
- Hematoma
- Hedradenoma Papilliferum
- Pyogenic Granuloma
- Kaposi’s Sarcoma
- Urethral Caruncle
- Urethral Prolapse
- Prurigo Nodularis (Picker’s Nodules)
- Pseudowarts
- Folliculitis and Furunculosis
- Chigger Bites
- Nodules Scabies
- Inflamed Cysts
- Hydradenitis Suppurativa
- Crohn’s Disease
- Secondarily Red Skin-Colored Tumors
- Papulosquamous Diseases
### Yellow Pustular Lesions
- Folliculitis
- Furunculosis
- Hidradenitis Suppurativa
- Mucocutaneous Candidiasis
- Pustular Psoriasis
- Reiter’s Syndrome
- Sneddon-Wilson Disease
- Bullous Impetigo

### Erosive/Vesiculobullous Disease
- Lichen Planus
- Plasma cell (Zoon’s) vulvitis/balanitis
- Lichen Sclerosis
- Reiter’s Disease
- Lichen Simplex Chronicus
- Necrolytic migratory erythema
- Impetigo
- Pemphigus
- Bullous pemphigoid
- Cicatricial pemphigoid
- Linear IgA Disease
- Epidermolysis bullosa acquisita
- Pemphigoid gestationis
- Dermatitis herpetiformis
- Benign familial pemphigus
- Erythema multiforme
- Fixed drug eruption

### Ulcer Disease
- Apthae
- Behcet’s Disease
- Ulcus Vulvae Acutum
- Pyoderma Gangrenosum
- Crohn’s Disease
- Factitial Ulcerations
- Diseases that secondarily ulcerate
  - Lichen Planus
  - Tumor
  - Hidradenitis Suppurativa

### Contact Dermatitis
- Basal cell carcinoma
- Squamous cell carcinoma
- Vulvar intraepithelial neoplasia
- Extramammary Paget’s disease
White Lesions
- Vitiligo
- Postinflammatory Hypopigmentation and Depigmentation
- Lichen Sclerosus (Lichen Sclerosus et Atrophicus)
- Lichen Planus
- Lichen Simplex Chronicus
- Candidiasis
- Intraepithelial Neoplasia
- White Spongy Nevus
- Epidermal Cysts and Milia
- Verruous Carcinoma (SCC)

Brown Lesions
- Physiologic Nigricans
- Post-Inflammatory Hyperpigmentation
- Genital Melanosis
- Melanocytic Nevus
- Atypical Nevus
- Melanoma
- Dermatofibroma
- Seborrheic Keratosis
- Pigmented Condylomata acuminata
- Intraepithelial neoplasia (bowenoid Papulosis, Bowel’s Disease)
- Kaposi’s Sarcoma
- Angiokeratoma

Skin Colored Lesions
- Genital Warts
- Moluscum Cantagiosum
- Condyloma lata
- Cysts
  - Epidermal Cysts
  - Vestibular Cysts
- Cyst of the Median Raphe
- Bartholin’s Gland Duct Cysts
- Acrochorda (Skin tag)
- Intradrmal Nevi
- Neurofibromas
- Lipomas
- Pearly Penile Papules
- Vestibular papillae
- Forcye’s spots (pilosebacious units)
- Tyson’s Glands
- Fox Fordyce Disease
- Keratosis Piliaris
- Hidradenoma Papilliferum
- Lichen Nitidus
- Sclerosing Lymphangitis
- Squamous Cell Carcinoma
  - Squamous Intraepithelia Neoplasia
  - Invasive Squamous Cell Carcinoma
- Basal Cell Carcinoma
- Elephantiasis Nostra Verrucosa
RED PATCHES AND PLAQUES
Recent sex with a new partner, “I thought he was the one.”
No condoms
Spermicide
“I think he gave me an STD”
Used feminine hygiene product
Used depilatory agent
Chlorox bath
Contact with substance

Inflammation

Itching, Stinging, Erythema

**Allergic**
- Specific immunologic response (Type IV)
- Occurs 2-4 days
- Topical medications
  - Spermicide
  - Personal hygiene products
  - Nail polish
  - Sanitary napkins
  - Condoms

**Irritant**
- Direct effects of irritating substance
- Occurs days to weeks
- TCA
- Liquid nitrogen
- Extreme heat
- Bleach
- Feces/Urine
- Water
- Deodorant
- Alcohol
Contact Dermatitis
Eczema
“The Itch that Rashes”

- History of allergies
- Atopic Dermatitis = Widespread
- Lichen Simplex Chronicus = Localized
  - Chronic itching or scratching
  - Lichenified lesions overlying a thickened, well-circumscribed plaque
  - Predilection for scrotum and vulva

- Self-perpetuating
  - Rubbing
  - Scratching

- Precipitant
  - Irritant
  - Allergen
  - Anxiety
  - Perspiration
  - Urine

- Perpetuating Factors
  - Cleaning
  - Scrubbing
  - Creams

- Scaling plaques
  - Excoriations
  - Drainage

- Itching
Eczema
Lichen Simplex Chronicus
Contact and Atopic Dermatitis Diagnosis and Treatment

- **Good History and Exam**
- **Remove irritant**
  - Stop rubbing or scratching
- **Steroids**
- **Sitz baths**
- **Sedation**
- **Avoid irritating substances**
- **Gentle cleanser**

**Improvement**
Psoriasis

- Hyperproliferation of the epidermis
- Red, sharply demarcated plaques with silver scale
- Preferentially affects
  - Scalp
  - Elbows
  - Knees
  - Gluteal cleft
  - Umbilicus
- Diagnosis: History, Exam, Histology
- Treatment: Dermatologist
Psoriasis: Genital Findings

- Often precipitated by:
  - Warmth
  - Perspiration
  - Urine
  - Friction

- Genital location:
  - Over the hair-bearing skin of the vulva
  - Glans
  - Shaft

- Scale may be inaparent because of the moisture of the genital area
Dermatophyte fungal Infection

- Occurs on drier keratinized skin
- Scaling well-demarcated plaques
- Does not affect scrotum or penis
  - Unless immunocompromised
- Look for fungal elements
- Topical Antifungals
RED PAPULES AND NODULES
Characteristics
- Small
- Purplish
- Sharply demarcated papules
- Cutaneous blood vessels
- Genetically predisposed
- May have innumerable lesions
- Reassurance
Cherry Angiomas

- Characteristics
  - Small
  - Bright red
  - Sharply demarcated papules
  - Very common in older white persons
  - Usually over trunk, but can occur in the perineum
- Reassurance

From: www2.kumc.edu/coa/Education/AMED900/Dermatology.htm
**Folliculitis/Furunculosis**

**Folliculitis**
Inflammation around the hair follicle

- Characteristics
  - Itch
  - Painful
  - Erythematous papules/nodules
- Location
  - Hair bearing areas
- **S aureus**
- Treatment:
  - Antibacterial cleansers
  - Topical antibiotics
  - Oral antibiotics

**Furunculosis**
Deeper, perifollicular abscess
Inflamed Cyst

- Can occur in:
  - Epidermal cysts
  - Median raphe cysts
  - Vestibular cysts
  - Bartholins duct cysts

- Characteristics:
  - Red
  - Tender
  - Nodular

- Caused by:
  - Friction
  - Trauma
  - Occasionally infection

- Antibiotics
- Steroid Injection
- Drainage with a catheter
- Marsupialization
Cystic Acne
- Not infection
- Apocrine and pilosebacious units with follicles distended by keratin/apocrine secretions

Location
- Axillae
- Genital Area
- Doesn’t remit after teenage years

Characteristics
- Comedones and nodules
- Painful as they enlarge
- May rupture
- Can form tracts draining to the surface
FLESH-COLORED PAPULES
18 year old male

MSM

Recently became sexually active

“My boyfriend told me I have warts.”
Caused by HPV
Usually asymptomatic
Number and size dependent on host immune status
Many shapes and sizes
- Round
- Acuminate (pointed)
- Filiform (long and slender)
- Raised
- Flat
Characteristics
- Skin-colored
- Monomorphous
- Dome-shaped
- In rows around the corona
- Most common in uncircumcised men
- Asymptomatic
- Reassurance
Vestibular Papillae

- Characteristics
  - Soft
  - Monomorphous
  - Discrete base
  - Occur in patches or lines
  - Bilaterally symmetrical
  - Rounded tips (rather than acuminate)
- Occur at the introitus and medial labia minora
- Present in ~1/2 of premenopausal women
- Reassurance
Fordyce Spots

- Pin-point yellowish papules
- Occur over labia minora/mucosal surfaces
- Enlarged sebaceous glands
- Reassurance
Molluscum Contagiosum

- **Characteristics**
  - 2-5 mm
  - Flesh-colored
  - Smooth
  - Domed
  - Centrally umbilicated
  - May have a few on face or genitals
  - May be widespread
- **Poxvirus**
- **Self-limited, asymptomatic**
- **Therapy**
  - Cryodessication
  - Curettage
  - Chemical peel
Molluscum Contagiosum

From: Bachmann, Clin.Derm Lecture 2008

From: www.dermatology.cdlib.org
Characteristics in HIV

- Tend to have more lesions
- Tend to be more nodular
  - Giant Molluscum ≥ 1.0 cm
- Disfiguring
- Generally responds to HIV therapy

**Lichen Nitidus**

- Characteristics
  - Tiny flesh-/pink-colored papules
  - Appears in follicular pattern
  - Asymptomatic
- Inflammatory skin d/o
- Affects all ages, races, genders
- Kobner phenomenon
  - Lesions along site of injury
- Reassurance
Entire thickness of the epithelium is replaced by undifferentiated cells
Risk of becoming malignant
  - Invasion
  - Metastasis
Severe forms of intraepithelial neoplasia
  - Bowen’s disease
  - Bowenoid papulosis
  - Squamous cell carcinoma in situ
Insidious onset
Linked to HPV
Mistaken for warts
**Bowenoid Papulosis**
(Multifocal VIN/PIN)

- 20 – 40 years old
- Well-marginated lesions
- Males = small flat topped papules on glans, penis, prepuce, or shaft
- Women = larger papules or small plaques at the vestibule and outer labia minora
- Classically hyperpigmented
Bowen’s Disease
(Unifocal VIN/PIN)

Older persons

Single, pink-reddish, sharply margined patch or plaque

Scaling on keratinized skin

Insidious, slow-growing over years

Asymptomatic except for itching or pain with cracking of skin

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Squamous Cell Carcinoma

- Malignant tumor of the skin and mucous membranes
- Account for 85%-90% of all vulvar malignancies
- Most common malignant tumor of the male genitalia
- Associated with long-standing inflammatory dermatoses
- Usually affects people >55 years old
SCC in Men

- On glans, coronal sulcus or prepuce
- Evolution
  - Skin colored papule/nodule → slowly enlarges → ulcerates → secondarily inflamed
- May be friable and bleed
- Can metastasize early to regional lymph nodes, especially if on glans or prepuce
- Can be very destructive
SCC in Women

- Uncommon
- Usually unifocal
- Variable morphology
- May occur at the:
  - Posterior fourchette
  - Labia minora
  - Interlabial fold

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Conavan et al. AAFP. 2002. 66:1269-1274

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<thead>
<tr>
<th>Models of Vulvar Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristic</strong></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Cervical neoplasia</td>
</tr>
<tr>
<td>Cofactors</td>
</tr>
<tr>
<td>Histopathology of tumor</td>
</tr>
<tr>
<td>HPV DNA</td>
</tr>
<tr>
<td>Pre-existing lesion</td>
</tr>
<tr>
<td>History of condyloma</td>
</tr>
<tr>
<td>History of STD</td>
</tr>
<tr>
<td>Cigarette smoking</td>
</tr>
</tbody>
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HPV = human papillomavirus; VIN = vulvar intraepithelial neoplasia; STD = sexually transmitted disease.
VESICLES, BULLAE, AND EROSIONS
Lichen Planus

- Autoimmune disorder/cause unknown
- Variable morphology
- Onset around age 40 years
- Recognized as a common condition of the penis
- Less well understood in women
  - Erosive vulvovaginal disease
- Milder disease-associated with pruritis or no symptoms
- More severe/erosive disease-associated with pain, especially during intercourse
- Often affects other mucous membranes
Lichen Planus has Variable Morphology

- On keratinized skin
  - Well-demarcated
  - Red, dusky, violaceous or brown
  - Flat-topped papules
  - Scaling disease (may be subtle)
  - Pathognomonic: lacy/fern-like pattern of fine, white striae over papule/patch
Lichen Planus has Variable Morphology

- **White papules/plaques**
  - May be:
    - Well-formed
    - Sharply demarcated
    - Uniformly hypopigmented
    - More often
      - Irregular, reticular striae

- **Erosions**
  - Nonspecific, shallow
  - May be associated with white lacy papules
  - Locations
    - Women: Introitus and inner labia minora
    - Men: Glans penis
  - Painful and pruritic
  - Purulent, malodorous vaginal discharge
  - Scarring can occur
Scarring associated with Lichen Planus
Lichen Planus affects other Areas
Not all individuals presenting to STD Clinics have STDs. Consider other causes for symptoms.

History and examination are important in diagnosing non-STD genital findings.
- How long has it been present?
- What have you been doing to the skin in that area?
- Do you have any skin trouble anywhere else?
- Does this look like an STD?
- Has this person been treated for STDs? Did it help?

Know your limitations: Ask and Refer