Pediatric Gynecology
Common Presentations

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The prepubertal gyn exam: Why?
- Well child exams
- Gynecologic complaints
- Sexual or physical abuse
  - Presenting complaint
  - Suspected
  - Undisclosed

Referrals
- Blood / discharge in underpants
- “ Doesn’t look right”
- Itching / scratching / burning
- Urinary complaints
- “ Inappropriate” sexual behaviors

Pediatric gyn exam: What
- General physical exam
  - Growth, skin, mucosal surfaces
- Gynecologic exam
  - Tanner staging
  - External genitalia
  - Visualization of distal vagina/cervix
  - Rectoabdominal exam as needed

Pediatric gyn exam: How?
- Preparation: control and choices
- Positioning
  - Frog leg, cradled, knee chest, stirrups
- Technique
  - Grasp labia
  - Pull OUTward (NOT laterally)
- Tools
Prepubertal gyn exam
Physiologic effects on anatomy

- Newborn (0-6 months)
  - estrogenized
Prepubertal gyn exam
Physiologic effects on anatomy

- Early childhood (6 mos - 5 yrs)
  - atrophic

- Late childhood (5 - 9 years)
  - intermittent estrogen secretion

- Puberty (8 - 12 years)
  - adult proportions
Prepubertal Genital Anatomy

Normal Hymeneal Variants

Traction
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Anatomic Abnormalities

- Imperforate / microperforate hymen
  - Most resolve at puberty
  - Repair only if symptomatic
- **Labial Adhesions**
  - Onset: 6 months - 6 years
  - Cause: atrophy/chronic irritation / sexual abuse?
  - Result: agglutination of labia minora
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Anatomic Abnormalities

- Labial Adhesions: Treatment
  - If mild, asymptomatic -- no treatment
  - If impaired urethral or vaginal drainage
    - Topical estrogen > 90% effective
    - Demonstrate proper application
    - 2 wks - 3 months treatment
    - Commonly recur
  - Surgical separation under anesthesia - rare!

- Urethral Prolapse
  - Peak onset 5-8 years
  - Primarily black & hispanic girls
  - Cause: unknown
    - Increased intra-abdominal pressure (67%)
    - Hypoestrogenic
    - Cleavage of abnormal connective tissue planes
Urethral Prolapse

- **Presentation**
  - Friable mass
  - Bleeding (88%), painless (97%)
- **Differential diagnosis:** sarcoma, ureterocele
- **Treatment:** medical (surgical = rare)
  - Sitz baths
  - Topical estrogen + topical antibiotic ointment

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Vulvovaginitis: Presentation

- **Symptoms**
  - Irritated, itching or burning vulva
- **Clinical findings**
  - Up to 25% have no clinical findings
  - 50% have discharge
  - Erythema, excoriations, maceration
  - Coaptational erythema

Why so common?
- Hypoestrogenic, thin, atrophic mucosa
- Hygiene
- Poorly developed labia that flare
- Proximity of anus and vagina
- Alkaline vaginal environment
- Immature local immunity

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Anatomic Abnormalities

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Inflammatory & Infectious Problems

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Vulvovaginitis: Etiology

- Poor hygiene + local flora + chemical irritants
- URI microbes
  - Group A strep, H. influenza, S. pneumonia, K. pneumonia, N. meningitis, S. aureus, B. catarrhalis
- Other Infectious causes
  - Enteric (Yersinia, Shigella)
  - Pinworms
- Systemic illness
  - Measles, chicken pox, Stephen-Johnson, mono, Crohn's

Vulvovaginitis: IMITATORS

- Physiologic discharge of puberty
  - White-yellow, homogenous, irritative
  - Acidic pH (<4.5)
  - Microscopy: epithelial cells, rare wbc's
- Dermatitis, dermatoses
- Ectopic ureter
  - Usually presents after toilet training

Vulvovaginitis: Treatment

- First line
  - Hygiene, supervision of toileting habits
  - Sitz baths, drying, avoid chemical irritants
  - Bland skin barrier ointments (zinc based)
  - Avoid trauma from clothing
- Second line
  - Low dose topical steroid (0.5% or 1% HCO)
  - Antipruritic at bedtime
  - Antibiotics - only temporize until hygiene improves

Lichen Sclerosis

- Vulvar skin dystrophy
- Onset: prepubertal, postmenopausal
- Effect: vulvar dermal thinning, erythema, blisters, subdermal hemorrhage
- Etiology: unclear
  - Autoimmune, genetic, endocrinologic
  - Associated with Koebner phenomenon

Lichen Sclerosis: Diagnosis

- Clinical
  - Parchment-like epithelium
  - Figure of eight distribution over vulva
  - Subdermal hemorrhage, blisters
  - Excoriations
- Biopsy: usually not necessary
  - Classic microscopic appearance
Lichen Sclerosis: Treatment

- Topical corticosteroids
- Topical fluorinated steroids--long taper
  clobetasol > fluticasone > fluocinolone > HCO
- Lidocaine 5% ointment before urination
- Antipruritic at bedtime
- Avoid trauma, straddle activities

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Vaginal Foreign Objects

- Presentation
  - Discharge: bloody/brown, foul odor
  - Vulvar erythema
  - 20% have bleeding without foul discharge
- Diagnosis
  - Visible in distal vagina
  - Radiologic tests unnecessary
  - Vaginoscopy: diagnostic and therapeutic
Vaginal Foreign Objects

Treatment
- Removal:
  - In office: irrigation or rectal “milking”
  - Under anesthesia: if solid, embedded
- Prevention
  - No cheap toilet paper!
  - Education

Transmission
- Vertical: presents within 24 months
- Sexual: may present at any age
- MUST consider sexual abuse
- “Hand” warts do not transmit to genital mucosa
**HPV / Genital Warts**

- **Treatment**
  - Avoid caustic agents (BCA, podophylin)
  - EMLA if small lesion and one treatment
  - Laser
  - Imiquimod - not approved for children but works great!
- **Recurrence rates high for all**
  - 50% at best

**Genital Ulcerations**

- HSV I and II
- Post viral genital ulcerations
- Behcet’s syndrome
- Lichen Sclerosis

**Things to Remember**

- Most problems related to anatomy & hypoestrogenic environment
- Must always address possibility of abuse
- Take advantage of teachable moments