Common Vulvar Complaints in Pre-Pubertal and Adolescent Girls

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Educational Objectives

• Become acquainted with how to approach the genital exam in young girls
• Learn about a variety of conditions of the vulva in children and adolescents
• Become cognizant of when referral to a specialist is indicated
Disclosures

• No relevant financial disclosures
• I will discuss the off-label use of medications
Examination of a Child

• Explain to child and parent
  – Good Touch/Bad Touch
  – Personal Body Safety

• Have child handle instruments
  – Penlight
Examination of a Child

Parent presence
Take your time
May need exam under anesthesia
Normal anatomic relationships in prepubescent female external genitalia.

Chalmers DJ¹, O'Donnell CJ², Casperson KJ³, Berngard SC⁴, Hou AH⁵, Nuss GR⁶, Cost NG⁷, Wilcox DT⁸.
Examination of a Child

Digital Photography

Photos courtesy of Veronica Gomez-Lobo
External Genitalia

- Presence of pubic hair
- Signs of estrogenization
- Erythema or excoriation
- Size of clitoris
- Configuration of the hymen
  - Crescentic, annular or redundant
Sampling the Vagina

• Swab for C&S
  – Avoid the hymen
  – Can irrigate with saline
  – Use pre-moistened swab
  – Cough for opening and distraction

• Culture for GC/Chlamydia, and C&S
  – No need to culture cervix
Case #1

• A six year old girl presents with her mother who states that she noticed a discharge on the girl’s panties as well as redness of the vulva and odor
Vulvovaginitis of the Prepubertal Child

Nonspecific (25-75%)
Specific: Respiratory pathogens
  Enteric
  Candida
  STD’s
Pinworms
Foreign Body
Polyps/tumors
Systemic illness
Skin disease
Trauma
Vulvovaginitis of the Prepubertal Child

• Normal pH 6.5 to 7.5 due to low estrogen
• Normal flora: lactobacilli, Staph epi, Bacteroides, enteric organisms, E. coli, Strep pneumoniae, Staph aureus
• No H. flu, Strep pyogenes or Mycoplasma seen in one study
• Overlap between symptomatic and asymptomatic girls

Gardner JJ; J Pediatr 1992; 120:872
Group A Strep Infection
Candida in Prepubertal Children

• Normal flora 3-4% girls
• Estrogen dependent condition
• Uncommon in pre-pubertal children unless
  • Recent antibiotics
  • Diabetes
  • Immunocompromise
  • Diapers (Newborns have estrogen)
• Chronic candidiasis rare
Vulvovaginitis: Treatment

General Measures:
- Sitz baths
- Urination with legs spread apart
- Treat constipation
- Cotton underpants
- Avoid soaps, bubble baths and shampoo
- Loose fitting clothes
- Strategic wiping

North America Society of Pediatric and Adolescent Gynecology Handout- www.naspag.org
Case #2

Photos courtesy of Veronica Gomez-Lobo
Pediatric Lichen Sclerosus

• 1:300- 1:1000
• Usually before age 7
• Rarely requires biopsy:
  – White, atrophic vulva with excoriation and ulceration in classic figure of 8 distribution
• Treat with clobetasol ointment BID x 6 weeks, then taper off
• May need maintenance regimen
• Avoid irritants and tight clothes
• Usually resolves at puberty but case reports of vulvar cancer
Retrospective review of 70 cases:

- 17% had positive family history
- 14% had associated autoimmune disease
- 59% had associated atopy

Symptoms:

- Purpura (20%)
- Dysuria (16%)
- Constipation (12%)
- Genital Erosions (6%)
- Extragenital LS (9%)
• 21 post-pubertal girls
  – 16 reported improvement in symptoms, 11 had continued pruritus
  – Definite physical signs persisted in 16

• 12 young pre-menopausal women with vulvar LS
  – 4 could recall symptoms in childhood
  – One had resolution of symptoms in teen years, but later died of vulvar SCC
This child’s mother is very worried about these white patches in the groin. What additional questions should you ask? How do you treat?
Anogenital Vitiligo

• Asymptomatic depigmented patches
• Asymmetry can be notable
• Repigmentation of clitoris first
• We do not advise treatment
• If treatment desired, calcineurin inhibitors
Case #4

This condition is most likely caused by:
A. HPV infection
B. Constipation
C. HSV infection
D. Sarcoidosis
E. Crohns disease
Perineal Pyramidal Protrusion
Perineal Pyramidal Protrusion

- Seen in association with constipation/anal fissuring
- Prepubertal children
- Don’t mistake for condyloma
- Treatment: Polyethylene glycol daily PRN

Infantile pyramidal protrusion localized at the vulva as a manifestation of lichen sclerosus et atrophicus.
Hernandez-Machin B, Almeida P, Lujan D, Montenegro T, Borrego L.

Infantile perianal pyramidal protrusion: report of a case and review of the literature.
Fleet SL¹, Davis LS.


Infantile perianal pyramidal protrusion with hard stool history.
Miyamoto T¹, Inoue S, Hageri Y, Minara M.
Irritant Contact Dermatitis

• Jacquet’s Dermatitis: Irritant diaper dermatitis complicated by candida
• Treat with 40% zinc oxide
• Mineral oil on cotton round
• Azole cream BID
Irritant Contact Dermatitis

- Pseudoverrucous Papules and Nodules
- Chronic urinary incontinence
- Barrier and gentle skin care
- Low potency topical steroid
- Identify underlying reason for incontinence
Irritant Contact Dermatitis

- Chronic urinary incontinence
- Vaginal urination from ectopic ureter
- Treat underlying condition
Vulvar Edema

• Causes
  – Crohn’s disease
  – Cellulitis
  – Dependent edema in a newborn
Cutaneous Crohn's Disease

- Also called metastatic Crohn's
- Affects anogenital regions most commonly
- Usually not contiguous with intestinal lesions
- If suspected, check fecal calprotectin level
- Can be the presenting sign of Crohn's disease
- Treated with systemic immunosuppressive agents, PO metronidazole, topical steroids
After 2 weeks of clobetasol and PO metronidazole
HPV

• The most appropriate next step is:
  • a) explain that this is most likely the result of perinatal transmission
  • b) take a biopsy of the lesion to rule out malignancy
  • c) swab for HPV typing
  • d) treat the lesion with podofilox
STD: is it sexual abuse?

- HPV
  - Likely perinatal transmission
  - Incubation months to years
- Bacterial vaginosis
  - More likely to be abuse
- Gonorrhea
  - Rarely asymptomatic
  - 2.8% sexual abuse evaluation
- Chlamydia
- Can be perinatal but >2 years abuse
- Often asymptomatic
- 1.8% sexual abuse evaluations
- Trichomonas
  - Rare in non-estrogenized mucosa
  - Primarily sexually transmitted
- HSV
  - Type 1 may be autoinoculation
  - Both types may be sexually transmitted
Pediatric Vulvar Dermatology Clinic

• Meets every 1st Wednesday in the afternoon
• Lichen sclerosus studies currently enrolling (child should not be treated prior)
• Email dermatology@cnmc.org to refer patients
Thank You!!!

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