Sexually Transmitted Diseases in Children: Is it Abuse?

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Sexually Transmitted Diseases in Children: Is it Abuse?

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General Considerations

- Rare (1-5%) but important evidence of CSA
- Social and legal implications
- Need to consider
  - History of sexual victimization
  - Characteristics of STI
  - Age of child

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Implications of STI's in Child Sexual Abuse (AAP)

ST/SA Confirmed	Evidence for Sexual Abuse	Suggested Action
Gonorrhea*	Diagnostic	Report**
Syphilis*	Diagnostic	Report**
HIV***	Diagnostic	Report**
Chlamydia trachomatis*	Diagnostic	Report**
Trichomonas vaginalis	Highly suspicious	Report**
Anogenital warts*	Suspicious	Report**
Genital herpes*	Suspicious	Report**
Bacterial vaginosis	Inconclusive	Medical follow-up

*If not likely to be perinatally acquired

**Reports should be made to the agency in the community mandated to receive reports of suspected child abuse or neglect

***If not likely to be acquired perinatally or through transfusion

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Indications for STD Testing

1. Child has experienced penetration or has evidence of recent or healed penetrative injury to the genitals, anus, or oropharynx.
2. Child has been abused by a stranger.
3. Child has been abused by a perpetrator known to be infected with an STD or at high risk for STDs (e.g. intravenous drug abusers, MSM, persons with multiple sexual partners, and those with a history of STDs).
4. Child has a sibling, other relative, or another person in the household with an STD.
5. Child lives in an area with a high rate of STD in the community.
6. Child has signs or symptoms of STDs (e.g., vaginal discharge or pain, genital itching or odor, urinary symptoms, and genital lesions or ulcers).
7. Child or parent requests STD testing.

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STD Testing

Gonorrhea	NAAT testing-throat, urine/vaginal, rectal
Chlamydia	NAAT testing-urine/vaginal, rectal
Trichomonas vaginalis	Wet prep, Culture, Rapid test
HIV	Blood test-HIV screen, HIV-DNA, HIV-RNA
Syphilis	Blood test-RPR or VDRL
Hepatitis B	Blood test- Hep B panel
Hepatitis C	Blood test- Antibody or RNA
BV	Wet mount, pH, discharge, whiff test
HSV	Culture or PCR, Typing
HPV	Visual inspection, biopsy

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When to test

- **Prepubertal**
  - Baseline GC/CT and serology in acute assault
  - GC/CT testing 2 weeks after last incident
  - Follow up serology in 4-6 weeks and 4 mo.
- **Adolescent**
  - Baseline serology in acute assault
  - STD Prophylaxis in acute assault
  - Follow up serology in 4-6 weeks and 4 mo.

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STD Testing -Adolescent

- Acute (<120 hours)
  - HIV test
    - If concern for trafficking, also order HIV RNA PCR
  - RPR
  - Hepatitis B
  - Hepatitis C
- Non-acute
  - Urine or vaginal NAAT (GC and CT)
  - Rectal NAAT (GC and CT)
  - Oral NAAT (GC)
  - Wet Mount
  - Trich antigen test
  - HIV test
  - RPR
  - Hepatitis B
  - Hepatitis C

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Why not test adolescents for GC/CT in acute assaults?

- If positive, may represent pre-existing infection, perpetrator semen, or new infection.
- Pre-existing STD may have negative implications in court.
- You are treating anyway…

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STD Prophylaxis

- Recommended in acute sexual assault with postpubertal patients
  - Ceftriaxone 250mg IM
  - Azithromycin 1000mg PO
  - Metronidazole 2000mg PO

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What if the child has an STD and the suspect tests negative?

- Suspect may have been treated for the STD or another infection
- Spontaneous clearance
- False negative test in suspect

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Treatment Considerations

- Consider starting HPV vaccine at age 9 in sexual abuse victims
- Remember pregnancy prophylaxis-can give up to 120 hours after assault
  - Plan B 1.5mg Levonorgestrel
  - Ella 30mg Ulipristal acetate if weight >165lbs
  - Ella also preferred drug if 72-120 hours since assault, but may still use Plan B if not available.)

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GONORRHEA

- Wisconsin is a high prevalence state
- Incubation period: 2-7 days
- Transmission
  - Birth-30-40% of mothers with GC
    - Eye (Ophthalmia neonatorum)
    - Scalp abscess
    - Disseminated infection
  - Sexual contact

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GONORRHEA

- Sites
  - Vaginal or Urethral: pain with urination, discharge
  - Rectal: proctitis
  - Throat: pharyngitis (often asymptomatic)
  - Eye-conjunctivitis
  - PID: ascending infection, abdominal pain
    - Much more likely in adolescents

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Can gonorrhea be non-sexually transmitted?

- Gonococcus is highly susceptible to drying and environmental temperature.
- Toilet seats?
  - May survive a couple of hours in purulent discharge, but sitting on a contaminated toilet seat is not sufficient for transmission
- Case of pharyngitis from ingestion of chocolate agar
- Nursery studies-rectal thermometer?

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Treatment for Gonorrhea (uncomplicated)

- Children less than 45 kg.
  - Ceftriaxone 125 mg IM single dose
  - AND Azithromycin 20mg/kg
- Children greater than 45 kg.
  - Ceftriaxone 250 mg IM single dose
  - AND Azithromycin 1,000mg
- Test of cure not needed if Ceftriaxone given. If Cefixime used (fear of shots), test of cure should be done in 1 mo.
- See CDC guidelines for other treatment considerations.

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CHLAMYDIA

- Wisconsin is a high prevalence state
- Transmission
  - Birth
    - Eye- occurs at 5-14 days
    - Respiratory- occurs at 5-12 weeks
    - Colonization of the vagina/rectum up to 3 years
  - Sexual Contact
- Incubation Period 7-21 days

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CHLAMYDIA

- Symptoms:
  - Discharge, vaginal or rectal pain, dysuria
  - Most often asymptomatic
- Sites of infection
  - Urethral
  - Vaginal
  - Rectal
  - Eye

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What about non-sexual transmission of Chlamydia?

- May colonize the reproductive tract up to 3 years after birth
- An obligate intracellular organism
- Extremely sensitive to environmental temperature and moisture

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Treatment for Chlamydia

- Children less than 45 kg.
  - Azithromycin 20mg/kg po single dose
  - Erythromycin 50mg/kg/day divided into 4 doses/day for 14 days
- Greater than 45 kg but less than 8 yrs old
  - Azithromycin 1 gm po single dose
- Age greater than 8 yrs
  - Azithromycin 1 gm po single dose
  - Doxycycline 100 mg po bid for 7 days
- Test of cure recommended 3 or more weeks after treatment completion

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Questions?

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TRICHOMONAS

- Transmission
  - Birth
  - Sexual contact
  - ?fomites?
- Symptoms:
  - Discharge, itching, dysuria
- Incubation Period:
  - 4-28 days, average 1 week
- Diagnosis
  - Vaginal Wet Mount - 60% to 70% detection
  - Culture more reliable (80% detection)
  - Trichomonas rapid antigen test available for adolescents

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Treatment for T vaginalis

- Children
  - Metronidazole 15 mg/kg/day tid for 7 days (max 250 mg)
- Adolescents or adults
  - Metronidazole 2 gm po single dose
  - Metronidazole 500 mg po bid for 7 days
  - Tinidazole 2 gm po single dose

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Trichomonas non-sexual transmission?

- Vertical (perinatal) transmission can occur and colonize the reproductive tract up to 1 year.
- Organism may survive on moist surface for up to 2 hours, though fomite transmission is unlikely

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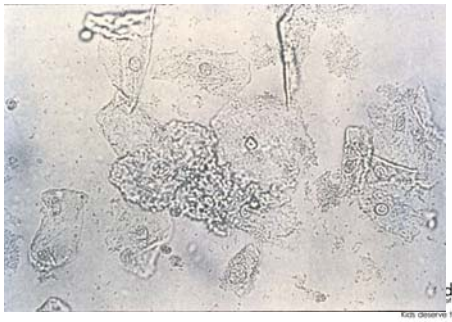
BACTERIAL VAGINOSIS

- Not an STI, but may raise suspicion
- Seen more commonly in females who are sexually active
- Nonspecific for Sexual Abuse
- May be hygiene-related in prepubertal children
- Symptoms: Discharge, fishy odor, itching/burning
- Diagnosis: Vaginal wet mount
  - Clue cells, whiff test, increased vaginal pH, WBC's

Clue Cells



Treatment for BV

- Child
  - Metronidazole 15 mg/kg/day po tid for 7 days
- Adolescents or adults
  - Metronidazole 500 mg po bid for 7 days
  - Metronidazole gel intravaginally for 5 days
  - Clindamycin cream intravaginally for 7 days

CONDYLOMA (HPV) GENITAL/ANAL WARTS

- The most common viral STI
- Perinatal Transmission- Incubation period up to 3 years (ask mother about warts, abnormal pap smears, other STI's)
- Direct non-sexual contact (ie. Caretaker)
- Autoinoculation
- Positive predictive value of HPV for sexual abuse increases after age 4.

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HPV

- Signs/symptoms
  - Fleshy growths, occasional bleeding, pain, but often asymptomatic
- Diagnosis
  - Appearance
  - Biopsy, typing not routinely done
- Incubation period: weeks to years
- Not all patients with HPV develop visible lesions
- Transmission can depend on host immunity, condition of skin, etc.
- Reappearance of warts in child does not necessarily mean re-exposure to perpetrator

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HPV Cont.

- Sites: vulvovaginal, cervix, penile, anal, oropharynx
- Over 90 different subtypes
  - (6, 11 most common in genital area)
- Risk of cervical cancer with certain types
  - (16, 18, 31, 33, 35)

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HPV

- Work-up includes detailed exam, GC and Chlamydia cultures, wet mount, HIV test, RPR, and Hep B screen, forensic interview if appropriate
- Consider report to CPS for investigation
- Treatment: watchful waiting
  - Most HPV infections resolve on their own through host immune system within 2 years
- May refer to Dermatology or GYN for treatment if symptomatic
  - Podophyllin, Imiquimod (Aldera), TCA, Cryotherapy, Laser
- Vaccine for ages 9-26
  - Protects against 9 types of HPV
  - If started at age 11-12, may need only 2 doses 6 mo apart.

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HERPES SIMPLEX (HSV)

- Type 1: usually oral
- Type 2: usually genital
- Neonatal: Severe infection in 1st month
- Sexual contact most common cause of genital herpes
- Possible autoinoculation or non-sexual caregiver contact
- Supportive evidence with disclosure.
- Type 2 in anogenital area more concerning.
- Incubation period 2 days to 2 weeks

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HERPES SIMPLEX Cont.

- Symptoms
  - Fever, itching, pain, grouped vesicles, scab over and resolve in 5-14 days
  - Symptoms more severe in primary HSV infection
- Testing:
  - HSV PCR with typing
  - Culture with typing
  - Type specific serology-may detect prior infection-not routinely recommended
- Recurrences (secondary Herpes) are common

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Treatment of HSV

- Reduces symptom severity, length of outbreak, viral shedding
- Acyclovir
  - Children - 80 mg / kg / day po qid for 7 - 10 days
  - Adults - 200 mg po 5X daily for 7 to 10 days
- Valaciclovir and Famciclovir
  - Less frequent dosing
  - No pediatric formulation available

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SYPHILIS

- Transmission
  - Perinatal-congenital syphilis
  - Sexual contact- direct sexual contact with lesion or mucous membrane of infected person
  - Incubation period 10 to 90 days (usual 3 wks)
- Primary Syphilis: Painless genital chancre 21 days after exposure
- Secondary Syphilis: Skin rash months after exposure
- Tertiary Syphilis: Cardiac, ophthalmic, etc manifestations
- Latent Syphilis

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SYPHILIS Cont..

- Diagnosis
  - RPR or VDRL used for screening
  - FTA-ABS to confirm or diagnose early syphilis
- Treatment:
  - Benzathine Penicillin G 50,000U / kg IM up to max of 2.4 million units

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HIV

- Transmission
  - Perinatal
  - Sexual contact (semen, vaginal fluids)
  - Blood (transfusion, needles, etc)
- Testing:
  - HIV screen
  - HIV RNA-shorter window period
- Test perpetrator if possible (voluntary or court order)

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Consider HIV Prophylaxis

- Child presents within 72 hrs of assault
- Consider nature of assault
  - Trauma, bleeding, penetration, exposure to ejaculate, blood, or vaginal fluids
- Suspect at high risk
- Multiple assailants
- Patient or parent requests
- Consider likelihood of compliance with treatment
  - 3 drug regimen for 28 days, follow-up lab work
- Weigh benefit of treatment vs. adverse reaction
  - Anemia, decreased WBC's, nausea, headache, GI upset, liver, kidney
- PREP for high risk adolescents (trafficking)

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Hepatitis

- Type B
- Transmission
  - Birth
  - Sexual contact (2/3 of adult cases of acute Hep B)
  - Blood (Needles, syringes)
  - Close household contact (razors, toothbrushes)
  - Consider Hepatitis B Vaccine after acute assault
    - Give vaccine if not vaccinated or incompletely vaccinated
    - If unsure of status, do serology (Hep B Surface Antibody)
    - If perp known to have Hepatitis B, give HBIG also

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Hepatitis

- Type C
  - Most common blood-borne infection in US
  - Not efficiently transmitted through sex
  - Increased risk of transmission in persons with HIV and MSM
  - Risk of Hep C infection in people with unregulated tattoos, IV drug use, intranasal drug use
  - Testing: HCV antibody, HCV RNA

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STD Mimics

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Vaginal Discharge

- Sexually transmitted diseases
- Non-sexually transmitted bacterial, viral, or fungal infections
- Foreign body
- Pinworms
- Irritation/Hygiene-related
- Smegma

Molluscum Contagiosum

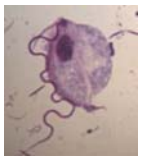
- Pox virus
- Flesh colored papules with central umbilication
- Can occur anywhere on the body *including the anogenital region*
- Easily spread through direct contact or auto-innoculation
- May resemble HPV, especially if chronic, excoriated or with atopic dermatitis
- No/low suspicion for sexual abuse in children

PPPN

- Perianal pseudoverrucous papules and nodules
- Occurs in the diaper or anal area, at any age, on areas with chronic wetness. (enuresis)
- May be mistaken for HPV

Trichomonas

T vaginalis



T hominis

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Trichomonas hominis

- A GI tract parasite
- Sometimes seen in urine specimens, raising suspicion of abuse in prepubertal child
- Cannot live in vagina-wet prep will be negative
- Difference in undulating membrane and flagellae

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