Evaluating Patients For Secondary Syphilis

SEXUAL HISTORY, RISK ASSESSMENT & PHYSICAL EXAM

Sexual History, Risk Assessment (past year)
- Gender of partners
- Number of partners (new, anonymous, serodiscordant HIV status, exchange of sex for drugs or money)
- Types of sexual exposure
- Recent STIs/HIV serostatus
- Substance abuse
- Condom use

Physical Exam
- Oral cavity
- Lymph nodes
- Skin
- Palms & soles
- Neurologic
- Eyes
- Genital/anal/perianal

History of Syphilis
- Prior syphilis (last serologic test & last treatment)

DIAGNOSTIC ISSUES IN SECONDARY SYPHILIS

- RPR/VDRL ~100% sensitive in secondary syphilis
- Prozone occurs <5 of secondary syphilis cases; if suspected ask lab to dilute serum to at least 1:16
- Use same test (RPR or VDRL) in sequential testing; titers are not interchangeable
- Need both non-treponemal (RPR or VDRL) and treponemal test to make syphilis diagnosis
- Treponemal tests (TP-PA, FTA-ABS, EIA, CIA) can remain positive for life; utility limited in patients with history of prior syphilis, comparison of non-treponemal titers needed
- RPR/VDRL titer interpretation should be taken in context of prior titers, clinical scenario and documented treatment history

Note: Evaluate for neurosyphilis (assess if neurologic, ophthalmic, or otic symptoms present, as neurosyphilis can occur at any stage of syphilis)

TREATMENT & FOLLOW-UP

Treatment of Secondary Syphilis

Recommended Regimen
- Benzathine Penicillin G 2.4 million units IM x 1

Alternative Regimens for Penicillin Allergic Non-Pregnant Patients:
- Efficacy not well established & not studied in HIV+ patients; close follow-up essential
  - Doxycycline 160 mg po bid x 2 weeks or
  - Tetracycline 500 mg po qid x 2 weeks

*Pregnant patients with penicillin allergy should be desensitized and treated with penicillin

See CDC STD Treatment Guidelines: www.cdc.gov/std/treatment

**Additional Testing and Follow-up
- Note: Also test for HIV, GC/CT, and pregnancy (if female of reproductive age)
  - 1-2 weeks: clinical follow-up
  - 3, 6, 9, 12, 24 months: serologic follow-up for HIV+ patients
  - 6, 12 months: serologic follow-up for HIV- patients
  - Failure of titer to decline fourfold (e.g. 1:1024 to ≤1:16) within 6-12 months from time at which treatment may indicate treatment failure. Titer decline may be slower in HIV+ patients.
  - Consider retreatment and CSF evaluation if titer fails to decline appropriately

Refer to CDC Treatment Guidelines for management of treatment failure & consult the STD Clinical Consultation Network at www.STDCCN.org

REPORTING & PARTNER MANAGEMENT

- All syphilis cases and presumptive cases must be reported to the local health department within 1 working day of diagnosis
- Local health departments will assist in partner notification & management
- Contact Number at Local Health Department:

SEXUAL HISTORY, RISK ASSESSMENT, & PHYSICAL EXAM

Patient with new onset rash, atypical warty lesion, or other signs & symptoms of secondary syphilis

SEXUAL HISTORY, RISK ASSESSMENT, & PHYSICAL EXAM

DIAGNOSTIC WORK-UP

Presumptive Secondary Syphilis

- Stat RPR (if available)
- RPR or VDRL serology (quantitative)
- Treponemal test (TP-PA/FTA-ABS/EIA/CIA)
- HIV Test

Possible Secondary Syphilis

- Consider presumptive treatment if high clinical suspicion.

Obtain serologic tests.

Treponemal Test

- Quantitative RPR/VDRL

- Quantitative RPR/VDRL

- TP-PA

Secondary Syphilis

- Treat, obtain quantitative RPR on treatment date, report to health department, partner management, & follow-up.

Possible Secondary Syphilis

- Could be prior syphilis (treated or untreated).
- Rule out prozone. Treat if high risk or high clinical suspicion. Repeat RPR 2-4 weeks.

Interpretation: possible syphilis, prior syphilis or false positive EIA.

RULE OUT PROZONE

- Rule out prozone. Reassess patient if alternate diagnosis favored or confirmed by laboratory testing, no further action.

If at risk for syphilis repeat RPR testing 2-4 weeks.

DIAGNOSTIC ISSUES IN SECONDARY SYPHILIS

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CLINICAL PRESENTATIONS OF SECONDARY SYPHILIS

- Symptoms typically occur 3-6 weeks after primary stage (can overlap with primary);
- 25% may have relapse of signs & symptoms in first year

Signs & Symptoms of Secondary Syphilis

- Rash: most common feature (75-90%); can be macular, papular, squamous (scale), pustular (rare), vesicular (very rare); combination; usually nonpruritic; may involve palms & soles (6%)

- Lymphadenopathy (70-90%): inguinal, epitrochlear, axillary & cervical sites most commonly affected

- Constitutional Symptoms: (50-80%): malaise, fever

- Mucous Patches: (6-30%): flat, gray-white patches in oral cavity & genital area

- Condyloma Lata: (5-20%): moist, heaped, wart-like lesions in genital, peri-rectal & rectal areas, & oral cavity

- Alopecia (10-15%): patchy hair loss, loss of lateral eyebrows

- Neurosyphilis: (<2%): visual loss, hearing loss, cranial nerve palsies among other

DIFFERENTIAL DIAGNOSIS

The rash of secondary syphilis includes: pityriasis rosea, psoriasis, erythema multiforme, tinea versicolor, scabies, drug reaction, primary HIV infection

Photo Credits
- With permission from University of Washington STD Prevention Training Center Washington (photos from UW HSCER Slide Bank);
- With permission from San Francisco City Clinic;
- See the online version of the Secondary Syphilis Algorithm on the clinical resources page of the CAPT website: www.captmirt.com

Acknowledgements:
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