Nursing assessment on syphilis patient.

Name

Professor

Institution

Date

How the nursing assessment is done on a syphilis patent.

Introduction.

Syphilis is a majorly chronic disease, a sexually transmitted infection (STI) from person to person through body fluids such as vaginal secretion, semen, or blood. It can also be transmitted through contact with skin or mucus membranes including eyes, mouth, throat, and anus. pregnant mothers with this disease can transmit the infection to the fetus either via the placenta or during childbirth. syphilis transmitted via the placenta may result in spontaneous abortion, fetal death, or poor fetal growth while during birth can cause congenital syphilis. Syphilis is divided into 4 phases primary, secondary, tertiary, and latent. These phases have different clinical manifestations.

Syphilis phases.

1. Primary syphilis happens after one gets exposed to bacteria through sexual contact. It mainly affects genital areas, for male penis, and women's labia or cervix. It starts by forming a single painless papule which ulcerates to form a characteristic feature of syphilis the heart shanker. It is a pain-free vascular indurated and circumscribed lesion. Almost all other ulcers are painful but syphilitic ulcers are pain-free. It gives out a thick exudate that is rich in spirochetes which are the causative bacteria. It also causes non-tender swelling of the inguinal lymph nodes which is very often bilateral. All these signs heal spontaneously without any medication in 10-40 days. However, this doesn't mean the syphilis is cured, after being asymptomatic for 2-6 months secondary syphilis sets in.

2. Secondary syphilis is the most infectious phase. It is caused by the widespread multiplication of treponemes or the causative agent in our bloodstream. It is characterized by a copper-colored maculopapular rash which is present all over the body including the palms and soles, this can even spread by a simple action of shaking hands. It causes the growth of flat wart-like lesions in the genital and perianal regions which is called condylomata lata generalized lymphadenopathy is seen along with characteristics of intraoral findings called mucus patches. These are multiple painless greyish-white plaques found on the oral mucosal. These lesions also heal spontaneously without any treatment but that doesn't mean the disease is gone. After decades of initial infection comes the tertiary stage.

3. Tertiary syphilis is majorly chronic and is characterized by very few spirochetes. It causes the formation of the famous syphilitic Guma or chronic granulomata together with cardiovascular aneurysms and meningovascular manifestations.

4. Latent syphilis, In this advanced stage syphilis affects the nervous system which causes neurosyphilis also called quaternary syphilis this is characterized by tapes dorsal or demyelination of the posterior columns which leads to general paralysis of the insane intraorally firm nodular Guma and may ulcerates leading to perforation of the palate. This form of syphilis is debilitating and even worse it can be fatal. This disease can last 1 year to 20 years.

In the last stage, the infected person lacks all clinical manifestations that are discussed in other phases, however, this person has a history of primary or secondary infection that test positive for syphilis when the serological test is performed on the blood. These infected people can still spread the infection in the early latent stage and the most common mode of transmission is through sexual contact. In case an infected mother spread the disease to the fetus this can occur all through the female's reproductive life if proper treatment has not been administered.

Testing.

There are two types of syphilis testing.

- The treponemal test and the organism is treponemal pallidum

-Nontreponemal test (NTT) that uses nonspecific cardiolipin antigen. Examples are VDRL or RPR.

They are easy to tell apart because the treponemal test has a T in them and the nontradable test doesn't have a T. The N-T test is the rapid plasma reagent test(RPR) and T is the general disease research laboratory test (VDRL). No T the treponemal test has a T fluorescent treponemal antibody test the micro gamma agglutination for treponemal pallidum the syphilis treponema pallidum igg and the tisch treponema paladin plasma agglutination test. These are all T-tests, the treponemal test, and the nontreponemal test are necessary because the treponemal test tells whether one has an antibody response against syphilis RPR.VDRL is a nontreponemal test but they tell about the activity of the disease, both of these tests are needed because of the different phases of syphilis.

In the last stage, the test might go negative if one has both a treponemal test and a nontreponemal test negative, that means one has no syphilis but if one has a treponemal test that is positive and a positive nontreponemal test, one has syphilis and that means it's active and needs to be treated.

In the primary phase that is the Shanker, any of these methods cannot be used because there is no antibody response yet. A dark field microscope is used on the Shanker but then after about six weeks test will go up and both the treponemal test and the nontreponemal test go up.

In the secondary stage, the treponemal test might go down and that might make a false negative and if treated here it will go down fourfold in the first year. A nontreponemal test is needed to gauge the activity of the disease and the effectiveness of therapy. Once the treponemal test is positive it stays positive for life regardless of whether one had treatment or not. One can use the treponemal test to tell if someone has syphilis or had syphilis before but to determine whether it's active one needs the nontradable test RPR or VDRL.

When the treponemal test is negative (-T) but the nontreponemal test is positive (+NT), always remember the treponemal test is better. the treponemal test will be repeated. If two treponemal, test negative and one nontreponemal test positive then the majority will be selected. The treponemal test has better sensitivity and specificity so the minority report will be ignored that's a false positive nontreponemal test.

When the treponemal test is positive (+T) but the nontreponemal test is (-NT), the treponemal test will again be repeated, However, if two treponemal tests are positive well that's a true positive. One may wonder if is this a true negative or a false negative. so a Treponemal test positive with a nontreponemal test negative could be a true negative. It's truly negative because one received penicillin treatment and that made the nontreponemal test go down but the treponemal test stays positive for life. Evidence is required to show one received penicillin and that is why the results received in the treponemal test are positive but the Negative nontreponemal test the alternative is that there is a false negative and that happens in tertiary syphilis. No treatment and the RPR still went down. one reason that may have caused that is the test being messed up.

Too much antigen or too much antibody will give agglutination on the RPR and that is the prozone effect. To get the test results, agglutination is needed. Immunoglobulin has to bind to the antigen and then clump together to get results. But if the antigen is too much, it will block the site and if there is a ton of syphilis in there they will not agglutinate together and a positive test will not be seen.

Too much antibody. The opposite can occur where too much antibody and not enough to agglutinate. Both too much antibody, excess antibody, and too much antigen, the excess antigen can cause a false negative on the nontreponemal test. However one needs to note whether had a treponemal or non treponemal test that was positive. A positive treponemal test and a negative nontreponemal test could be a false negative/true negative, it could be a false positive fall or a true positive but the only way to adjudicate is to have that piece of paper of receiving penicillin and repeat another treponemal test. if two of the three tests are positive go with that

Treatment of syphilis.

Since syphilis is a disease caused by the organism treponemal pallidum and lasts for a very long duration of time and has different phases the treatment is slightly different for each stage.NB.there is no home remedies or counter drugs for curing syphilis.

Syphilis is mostly easy to treat at its early stages but no matter which stage it is, IM Penicillin G benzathine is the drug of choice. It is used in its long-acting form and needs to be administered parentally most often through the intravenous or intramuscular route for different phases.

The preparation of dosage and length of treatment greatly differs. Thus proper diagnosis is important in treating tertiary and latent stages because they require a longer duration of therapy. A single intramuscular injection of long-acting benzathine penicillin will cure a person who has primary, secondary, or early latent syphilis. Three doses of long-acting benzathine penicillin at weekly intervals are recommended for individuals with late latent syphilis or latent syphilis of unknown duration.

Alternative therapies include doxycycline 100mg PO twice daily for 28 days or tetracycline 100mg PO 4 times daily for 28 days. Treatment will kill the syphilis bacterium and prevent further damage but it will not repair the damage already done.

NB. Selection of the appropriate penicillin preparation is important to make sure the infection is properly cured. Penicillin G is the only known effective antimicrobial for treating fetal infection and preventing congenital syphilis no proven alternatives to penicillin are available for the treatment of syphilis during pregnancy.

Preparations like oral benzathine penicillin and procaine penicillin should not be used T pallidum or the causative organism of syphilis can reside in sequestered sites such as our central nervous system. These drugs are not able to reach hidden organisms and not effective for the treatment of syphilis for individuals that are allergic to penicillin tetracycline is used to desensitize them before administering penicillin.

NB. Tetracycline cannot be administered during the second and third trimester of pregnancy.

Prevention

It is recommended to practice monogamous.

In case one has multiple sexual partners use condoms.

Always practice safe sex.

Avoid the use of recreational drugs that can transmit syphilis through contaminated needles.

References

NLM web: National Library of Medicine

Https://Medlineplus.gov/lab-test/syphilis -test

https://Medlineplus.gov/ency/article/001344.htm

MedlinePlus web