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Syphilis ‘The Great Imitator’

Leslie Gompf
Otterbein University, leslie.gompf@otterbein.edu

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Syphilis ‘The Great Imitator’

Leslie-Anne Huber BSN, RN, S.N.E.
Otterbein University, Westerville, Ohio

Introduction

Syphilis, a sexually transmitted disease, which is seen in many different patient populations, is one of the most common in the United States. According to Chan et al. (2015) “In 2012, the Rhode Island Department of Health (RIDOH) reported 62 cases of infectious syphilis, a 209% increase from 2006. This trend is observed across the country.”

Most people with untreated syphilis do not develop late stage syphilis. However, when it does happen it is very serious and would occur 10–30 years after your infection began. (CDC) “Syphilis symptoms in the late stage include muscle weakness, numbness, blindness and deafness and can damage many vital body systems. The complications can be so severe and stage can end up being fatal. Once you have late stage syphilis these symptoms can be easily confused with many other illnesses especially if they have been symptoms for a long time and have been exposed to or are diagnosed with syphilis.

The final type of syphilis is congenital syphilis. This can be caused by a mother who has syphilis during pregnancy. Patients who go to the secondary stage may be more easily diagnosed since there are more noticeable symptoms including a full body rash. The rash can cover palmar and soles of feet and patients can also have lesions like sores noted to mouth and skin of the palms and the soles of the feet. Other symptoms can include a sore throat, fever and muscle aches. For those not exposed during this time can have symptoms that come and go for months even up to a year when the disease becomes latent. Once the latent stage is achieved a patient can live in that stage for years and possibly never have any return of the disease or it can become tertiary syphilis also known as late syphilis.

When discussing signs and symptoms of syphilis you must note that there are many different symptoms that each patient will experience. It is also worth mentioning that as a provider the issue becomes even more unpredictable and complex due to the fact that the body's immune system can cause the bacteria to lay dormant for years. According to Follett and Clarke (2011) “There are many different types of neurosyphilis but the most commonly known form is syphilitic meningitis, caused by the syphilis bacteria entering the central nervous system. It is important to note, ‘syphilitic meningitis is an early or late manifestation of syphilis which can be easily confused with many other illnesses, especially if they have been symptoms for a long time and have been exposed to or are diagnosed with syphilis.”

The body is unable to become completely immune to T. pallidum and can remain dormant in the body many years after causing a recurrence known as tertiary syphilis. There are three types of tertiary syphilis, gummatous syphilis, cardiovascular syphilis and neurosyphilis. (Mostow, 2014) “T. pallidum can cause the meninges to become inflamed and thickened. This results in meningitis, which can cause the many vague symptoms and signs such as fever, generalized aches and other symptoms from other diseases.” Underlying Pathophysiology

Syphilis is caused by the spirochete bacteria T. pallidum and the pathophysiology is complex due to the fact that the body’s immune system can cause the bacteria to lay dormant for years. According to Euerle & Mostow (2014) “T. pallidum rapidly penetrates intact mucous membranes or microscopically damaged sites and enters through direct contact. These bacteria then migrate to nearby endothelial cells and multiply causing an immune response. Changes, painful sores, are then noted due to infiltration of sites with CD4+ and CD8+ T lymphocytes, macrophages and a few plasma cells (Luksetic). The body's coll- meditated humoral immune response take over to control the bacteria but are unable to clear the body of all bacteria which is what allows the secondary stage to occur. Patients can often present with allergic reactions type symptoms once the disease has already moved to the secondary stage. Syphilis that goes undiagnosed at this point in time could cause irreversible damage down the road if the patient converts to tertiary syphilis.”

Significance of Pathophysiology

The CDC said it best in 2014 “Syphilis has been called ‘the great imitator’ because it has so many possible symptoms, many of which look like symptoms from other diseases.” It is important for healthcare providers to know how syphilis works in the body so that they can be alert to the fact that a patient presenting with seemingly unrelated symptoms can have a severe, previously undiagnosed sexual transmission. It is important for providers to speak with their patients about high risk sexual behaviors, practices of safe and the importance of ongoing STI testing if not in a monogamous relationship.

Conclusion

Syphilis is important for providers to know about because though it can cause potentially life threatening complications it is easily treatable. As providers most of the patients that you will encounter have been or are currently sexually active. It is so important for providers to speak with their patients about high risk sexual behaviors, practices of safe and the importance of ongoing STI testing if not in a monogamous relationship.

References


• Knudsen, N. L., (2014). “The meningitis may be self resolved. Stiff neck, headache, nausea and vomiting, however these symptoms may resolve. It is important to note, “syphilitic meningitis is an early or late manifestation of syphilis which can be easily confused with many other illnesses, especially if they have been symptoms for a long time and have been exposed to or are diagnosed with syphilis.”


• Miller, B. A., & Hicks, C. B. (2010, September 3). “It is important for healthcare providers to know how syphilis works in the body so that they can be alert to the fact that a patient presenting with seemingly unrelated symptoms can have a severe, previously undiagnosed sexual transmission.” Neurosyphilis - Anomalies. (2013). Retrieved from http://www.cdc.gov/std/syphilis/stdfact-syphilis.htm.


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Table 1. Syphilis stages

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Localized infection, characteristic hard chancre (lesion) at site of infection.</td>
</tr>
<tr>
<td>Secondary</td>
<td>Generalized rash, fever, sore throat, lymph node swelling, hair loss, skin rashes, and mucous membrane ulcers.</td>
</tr>
<tr>
<td>Tertiary</td>
<td>Cardiac, neurologic, and gummatous manifestations.</td>
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</tbody>
</table>

Table 2. Recommended Treatment for Syphilis, by Stage

<table>
<thead>
<tr>
<th>Stage</th>
<th>Early latent or unknown duration</th>
<th>Late latent or early primary</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage</td>
<td>Penicillin G benzathine 2.4 million units IM</td>
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<thead>
<tr>
<th>Stage</th>
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<td>Early</td>
<td>Syphilis: The Great Imitator</td>
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Conclusion

Syphilis is important for providers to know about because though it can cause potentially life threatening complications it is easily treatable. As providers most of the patients that you will encounter have been or are currently sexually active. It is so important for providers to speak with their patients about high risk sexual behaviors, practices of safe and the importance of ongoing STI testing if not in a monogamous relationship.

Healthcare providers have ample opportunity to have honest and open conversations about sexual health. Syphilis is easily treatable and patients need to be educated on the fact that if diagnosed early there is no long term effects of the STD. Education needs to be a key focus of our nursing care with all patients in regards to all aspects of their personal health and safety.