

Sexually Transmitted Diseases

Case Study Analysis

Student Name

5/4/2020

Introduction

Sexually transmitted diseases are one of the most common causes of reproductive tract infections in both men and women and one of the leading causes of infertility. They can occur through unprotected sexual intercourse or through transfer of causative organisms by blood or shared needles. If identified and treated at the early stages, they may not cause much damage; however, when these infections become chronic, they can lead to the development of serious complications in the body. This paper aims to analyze a case study of a woman who developed pelvic inflammatory disease secondary to a sexually transmitted infection.

Case Study Analysis

Sexually Transmitted Diseases (STDs) are one of the most important factors that affect fertility in both men and women. Reproductive tract infections caused by *Chlamydia trachomatis* and *Neisseria gonorrhoeae* are the most common causes of infertility and Chlamydia infections can lead to Pelvic Inflammatory Disease (PID) in women. PID is a condition which leads to inflammation of the upper parts of the female reproductive tract leading to lateral lower quadrant pain and bilateral lower back pain seen in the patient. Other symptoms seen in the patient such as fever, chills, nausea, and vomiting are associated with the infection. Reddened cervix and foul-smelling green drainage from the vagina are indicative of the point of entry of the causative organism being the vagina (Deyhoul et al., 2017).

PID occurs due to colonization of the female reproductive tract by the causative microorganisms leading to inflammatory processes such as endometriosis, peritonitis, and salpingitis. PID is an ascending disease, meaning that it goes upward from the lower genital tract leading to inflammation of the various tissues. As a result, inflammatory markers such as C-reactive protein, neutrophils, and lymphocytes are found to be elevated in response to infection. These markers infiltrate at the site of injury leading to the

initiation of various inflammatory processes that are characterized by redness, tenderness, and swelling (Park et al., 2017).

In men, sexually transmitted infections lead to prostatitis that is characterized by pain and difficulty in urination, pelvic or rectal pain, and sexual dysfunction. It usually occurs when exposure to a causative organism during unprotected sexual intercourse leads to infection of the urethra before moving up to the prostate. If left untreated, it may spread to other parts of the body leading to a systemic infection with symptoms such as fever, chills, nausea, and malaise (Coker and Dierfeldt, 2016).

Sometimes, inflammatory conditions lead to a severe decrease in platelet count causing immune thrombocytopenia (ITP). ITP occurs due to cell-mediated and antibody-mediated destruction of platelets secondary to infections, autoimmune conditions, or lymphoproliferative disorders. As spleen is the primary site where platelets undergo destruction through the production of anti-platelet antibodies, splenectomy is a highly preferred therapy to address ITP. In about 80% of the patients, the platelet counts increase soon after performing splenectomy, and the advent of laparoscopic splenectomy has made it much easier for doctors as well as patients to opt for this procedure (Chaturvedi et al., 2018).

Another condition that can result secondary to inflammatory infections is anemia, which is a decrease in the number of circulating erythrocytes and/or a decrease in their oxygen-carrying capacity. It can be classified into several types based on the size and colour of the circulating erythrocytes. Based on the morphology of erythrocytes, anemia can be classified as microcytic where the erythrocytes are smaller than normal, normocytic where the erythrocytes are of normal size, and macrocytic where the erythrocytes are larger than normal. Based on the colour of the erythrocytes, anemia can be classified as normochromic indicating normal colour and hypochromic meaning reduced colour related to lesser number of hemoglobin molecules (Alli et al., 2017).

Summary

To conclude, acute sexually transmitted infections have a sudden onset and can usually be resolved through appropriate antibiotic therapies. It mostly involves symptomatic treatment and resolution of inflammation in the body. Sometimes, STDs can also lead to deficiency of erythrocytes, white blood cells, and platelets and these conditions need to be appropriately addressed to ensure complete resolution of the infection.

References

- Alli, N., Vaughan, J., & Patel, M. (2016). Anaemia: Approach to diagnosis. *South African Medical Journal*, 107(1), 23. doi:10.7196/samj.2017.v107i1.12148
- Chaturvedi, S., Arnold, D. M., & McCrae, K. R. (2018). Splenectomy for immune thrombocytopenia: Down but not out. *Blood*, 131(11), 1172-1182. doi:10.1182/blood-2017-09-742353
- Coker, T. J., & Dierfeldt, D. M. (2016). Acute Bacterial Prostatitis: Diagnosis and Management. *American Family Physician*, 93(2), 114-120.
- Deyhoul, N., Mohamaddoost, T., & Hosseini, M. (2017). Infertility-Related Risk Factors: A Systematic Review. *International Journal of Women's Health and Reproduction Sciences*, 5(1), 24-29. doi:10.15296/ijwhr.2017.05
- Park, S. T., Lee, S. W., Kim, M. J., Kang, Y. M., Moon, H. M., & Rhim, C. C. (2017). Clinical characteristics of genital chlamydia infection in pelvic inflammatory disease. *BMC Women's Health*, 17(1). doi:10.1186/s12905-016-0356-9