

UNIT 12 - REPRODUCTIVE SYSTEM

Diseases and Disorders of the Reproductive System

Identify the following diseases or disorders of the reproductive system.

Sexually Transmitted Infections – STI's [gonorrhea, syphilis, genital herpes, chlamydia, trichomoniasis, genital warts, HPV [Human Papilloma Virus])

A. Breast Cancer

Breast cancer is second only to lung cancer as the leading cause of cancer death among women in the United States. Breast cancer occurs in men also, but the number of new cases is small. Early detection and effective treatment is expected to reduce the number of women who die from breast cancer, and development of new methods of prevention continue to be studied. Risk factors of breast cancer include genetics, exposure to radiation, a high fat diet, and having the first baby after age 30. Breast cancer is generally found with routine breast self exams and mammograms. Treatment includes a lumpectomy or a mastectomy and may be followed with chemotherapy and/or radiation. Since the breast has so many lymph nodes nearby, the chances of metastasis are high involving other organs such as the brain, lung, intestines, bone, and liver.

B. Testicular Cancer

Testicular cancer accounts for only 1 percent of all cancers in men. About 7,500 men in the United States are diagnosed with testicular cancer each year. Testicular cancer occurs most often in men between the ages of 15 and 39, and is the most common form of cancer in men between the ages of 20 and 34. It is more common in white men than in black men. Most testicular cancers are found by men themselves. Also, doctors generally examine the testicles during routine physical exams. Between regular checkups, if a man notices anything unusual about his testicles, he should talk with his doctor. Men should see a doctor if they notice any of the following symptoms: a painless lump or swelling in the testicle, a feeling of heaviness in the scrotum. A man should see his health care provider immediately. Treatment includes an orchiectomy which may be followed by chemotherapy.

C. Cervical Cancer

Cervical cancer is cancer of the uterine cervix. There are several factors which increase a woman's chances including genetics, age, the presence of HIV, age, multiple sexual partners, use of birth control pills, infection with the human papilloma virus, and smoking. The symptoms of cervical cancer include no symptoms, a vague feeling of bloating, increased vaginal discharge, pelvic pain, and abnormal vaginal bleeding. Treatment includes surgery, chemotherapy and/or radiation.

D. Ovarian Cancer

Ovarian cancer is cancer of the ovaries and is the seventh most common cancer and the fifth leading cause of cancer death after lung, breast, colorectal, and pancreatic. The risk factors include genetics, age, and other unknown causes. Symptoms of ovarian cancer are fairly vague including bloating and abdominal pain which makes diagnosis difficult since women do not generally see their health care providers for those symptoms. There is a blood test, CA 125, available which is used for women with a familial history of ovarian cancer. Treatment includes surgery and/or chemotherapy.

E. Prostate Cancer

Prostate cancer is the cancer of the prostate and is the second most common form of cancer among men in the United States. It is the second cause of cancer death in men and the sixth leading cause of death of men overall. The two most commonly used tests to diagnose prostate cancer include a physical examination and blood test called the PSA. Treatment includes surgery, and well as radiation and/or chemotherapy.

G. Endometriosis

Endometriosis is the presence of the endometrium outside of the uterus. It affects over 5 million women in the United States. The cause of endometriosis seems to be the backflow of menstrual blood. The symptoms include very painful period, heavy periods, chronic abdominal pain, and usually infertility. It may be controlled by the use of birth control pills and surgery may be required to remove the endometrial tissue from organs where it does not belong.

H. Impotence

Impotence, otherwise known as Erectile Dysfunction or ED. Impotence," is the repeated inability to get or keep an erection firm enough for sexual intercourse. The word "impotence" may also be used to describe other problems that interfere with sexual intercourse and reproduction, such as lack of sexual desire and problems with ejaculation or orgasm. Using the term erectile dysfunction makes it clear that those other problems are not involved. Impotence is generally treated with counseling and with medications.

I. Gonorrhea

Gonorrhea is a sexually transmitted disease of the reproductive and urinary systems caused by the bacterium *Neisseria gonorrhoea*. Over 2 million cases are reported in the United States each year. It is prevalent among young people, ages 15 and 25, and persons with multiple sexual partners. Transmission almost exclusively follows sexual contact with an infected person. Newborns of infected mothers can contract the bacteria in their eyes when they pass through the vagina during delivery. Many males have no symptoms. Some males will develop painful urination and a greenish-yellow discharge from the urethra. Females usually have no symptoms except a greenish-yellow discharge from the cervix, painful urination and abdominal tenderness. Gonorrhea can spread and

infect the joints and the heart. The symptoms appear between three days and three weeks after infection. In females, it can cause pelvic inflammatory disease and sterility. Treatment is with an antibiotic, such as penicillin. Re-infection is common. Condoms can decrease the risk of transmission, but are not 100% effective. There are numerous strains of the bacteria that are resistant to penicillin and other antibiotics must be considered. Newborns receive antibiotic ointment in their eyes immediately after birth to prevent complication of the bacteria, such as blindness.

J. Syphilis

Syphilis is a chronic, infectious sexually transmitted disease that begins in the mucous membranes and spread throughout the body by the bloodstream. The untreated disease is characterized by progressive stages: primary, secondary, latent and late. The incidence is highest in persons between ages 15 and 39. There are more than 50,000 cases of syphilis in the United States annually. The cause of infection is a bacterium known as *Treponema pallidum*. Transmission occurs primarily through sexual contact but can be spread from a pregnant mother to her fetus. Primary syphilis is characterized by the presence of small, fluid-filled lesions or chancres on the genitalia. The lesions may be found on other parts of the body such as fingers and eyelids. The lesions will go away even if treatment is not sought. Primary syphilis is highly contagious. Secondary syphilis occurs several days or weeks after the onset of primary syphilis. Lesions appear on the trunk, arms, legs, scrotum and vulva. This stage is highly contagious. Latent syphilis is the next stage and is characterized by no outward symptoms. The bacterium continues to infect the body's internal organs. It is also a contagious stage. The last stage is the final stage. The bacteria may have attacked the liver, brain, bone marrow, stomach, lungs, spleen and brain. This phase results in death.

K. Genital Herpes

Genital herpes is an infection of the reproductive system cause by the herpes simplex II virus. The infection is the most commonly recurring of the sexually transmitted diseases. It is primarily transmitted through sexual contact. The infection can be passed to newborns by infected mothers during delivery. Signs of infection include a fluid-filled vesicle on the genitalia. The vesicles will rupture and develop into painful ulcers with characteristic yellow oozing centers. Treatment is with a drug known as Zovirax.

L. Chlamydia

Chlamydia is the most common sexually transmitted disease in the United States, afflicting millions of people annually. The cause is a bacterium known as *Chlamydia trachomatis*. The bacterium affects the reproductive, urinary, and lymphatic systems. Males and females may or may not show signs of infection. The primary lesion is a painless vesicle on the skin that often goes unnoticed. In males, the infection can lead to infection of the epididymis, prostate and the urethra. Pain and infectious discharge can result. In females, chlamydia can result in infection of the uterine tubes and the pelvis resulting in sterility. Treatment is with an antibiotic such as tetracycline. Condoms can decrease the risk of transmission, but are not 100% effective. Re-infection can occur especially if the patient does not finish their course of antibiotic therapy.

M. Trichomoniasis

Trichomoniasis is an infection of trichomonas. Trichomonas is a parasitic protozoa which may cause a vaginal infection resulting in increased foul-smelling vaginal discharge along with itching and burning of the vulva. It is treated with anti-fungal medication.

N Genital Warts

Genital warts are transmitted sexually through contact. The warts appear on the genitalia in warm, moist surfaces such as in the urethra of males and on the vulva, vagina and cervix of females. The painless warts start as tiny red swellings that grow and spread. The warts often look like cauliflower. Treatment includes medication such as benzoin or surgery. Re-infection is possible.

O. Human Papilloma Virus

Human papilloma virus is also called HPV. It is a virus that includes more than 100 types, over 30 of which are sexually transmitted. The types of HPV that infect the genital area are known as genital HPV. Most sexually active people will have HPV at some point in their lives, though most will never know it because it usually has no symptoms and goes away on its own. Genital HPV is one of the most common sexually transmitted diseases in the United States. At least 50 percent of sexually active men and women get genital HPV at some time in their lives. High-risk types can cause changes that can lead to cervical cancer over time, if left untreated. Having high-risk HPV is not the same as having cervical cancer. Usually, these high-risk HPV types cause no health problems at all and go away on their own. Persistent high-risk HPV (infection that does not go away) is the most important risk factor for cervical cancer. The good news is that cervical cell changes can be found with regular Pap tests, and treated to prevent cervical cancer from ever developing. There is no treatment or cure for HPV.