

Pathological Diseases

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Pathological diseases or conditions relate to the subjective and objective study of the causes, symptoms, and manifestation of different types of diseases. The classification of the diseases is based on the way a disease affects a patient and nature of the disease process. One of the examples of a pathological disease is a neoplastic disease which includes all the diseases that lead to the formation of tumors and specific forms of cancers. This paper analyzes the threat of cancer and its effects in the last 50 years. Further, the paper will analyze the symptoms, causes, and treatment of ovarian cancer as one of the major forms of cancer in the world.

### **Why Cancer Pose the Largest Health Threat**

Cancer is a major problem in the world of medicine because of its manifestation on the human body and lack of certain treatment methods for the condition. According to Global Burden of Disease Cancer Collaboration (2015), cancer is among the leading causes of death in the world. From the body's research, cancer caused approximately 8.2 million deaths in 2013 with approximately 14.9 million new cancer cases in the same year. In this context, the world is experiencing an increase in the number of cancer cases. There is a difference in the type of cancer that affects men and women with breast cancer being the main cause of disability-adjusted life-years (DALYs) while for men it is lung cancer (Global Burden of Disease Cancer Collaboration, 2015). Habib and Rojna (2013) find that there is a relationship between the increased cases of diabetes and the rise in cancer in the world. The authors also conclude that cancer is the second leading cause of death in the world after stroke (Habib & Rojna, 2013).

### **Impact of Cancer in the Last 50 Years**

Cancer risks have increased for the last 50 years according to different research findings. However, age-adjusted cancer deaths have decreased for people aged 50 years and below in

developed countries because of the widespread screening programs. Pergola and Silvestris indicate that for the last 50 years, the rise in obesity has contributed to an increase in cancer cases especially among the older generation (Pergola & Silvestris, 2013). Cancer cases in developing countries are on the rise because of the minimal screening and lack of awareness of the need to test early. Patients in the developing countries also resort to finding treatment in developed countries because of lack of enough facilities for the therapies of the disease.

### **Ovarian Cancer**

Ovarian cancer is a type of cancer that arises from the development of cancerous cells or different types of cells in the ovary of a woman. Some of the types of ovarian cancers are epithelial ovarian cancer (EOC), Ovarian Low Malignant Potential Tumor (OLMPT), sex cord-stromal tumors, and germ cell tumors. A woman's risk of the ovarian cancer is increased by inherited mutations such as the BRCA1 and BRCA2 genes. There is a minimal reliable screening of ovarian cancer and in most cases; the disease is not diagnosed until at its advanced stage with only about 20% being diagnosed at an early stage. Most women often mistake the disease with other forms of stomach ailments such as digestive disorders and menstrual cramps (Cancer Treatment Center of America).

### **Diagnosis, Causes, Signs, and Symptoms**

The American Cancer Society advises women to seek early diagnosis of the disease because research shows that early diagnosis of ovarian cancer help women to live longer than five years after diagnosis. One of the ways of getting diagnosed early is through regular women's health exams and seeing a doctor when one notices minimal signs. One of the diagnostic tests is physical tests, which involves a doctor carrying out physical tests on a woman by checking the state of the ovary using pelvic exams and checking for signs of fluid in the abdomen. Imaging

tests like computed tomography, magnetic resonance imaging, and ultrasound studies can help confirm whether a pelvic mass is present. Other diagnoses and test methods for ovarian cancer include colonoscopy, laparoscopy, biopsy, and blood tests. Diagnosis may help an individual to get genetic counseling and learn a lot about the risks to other forms of cancer (Society, American Cancer, n.d. ).

Ovarian cancer occurs when ovarian cells grow in an uncontrolled manner and led to the development of tumors in one or both ovaries. Such uncontrolled growth is caused by a mutation in the ovarian cells of the woman. Research shows that an inherited gene may cause one in ten ovarian cancers. Individuals who come from families with a history of ovarian cancer, colorectal cancer, uterine, and breast cancer have more risks of getting ovarian cancer and are thus advised to seek an early diagnosis to get counseling on prevention. The risk of ovarian cancer increases with age and obesity. Women who have carried the pregnancy to term before the age of 26 have lower risks as well as women who have used contraceptives. Use if fertility drug clomiphene citrate increases the risk of developing the tumor cells in a woman. It is important for women to understand the causes and risk factors of ovarian cancer (Society, American Cancer, n.d. ).

Women sometimes confuse the symptoms of ovarian cancer with other stomach conditions. One of the common symptoms of ovarian cancer is bloating abdominally with feelings of indigestion and nausea. Secondly, a woman may experience increased abdominal girth and changes in menstruation. It is also increased or more frequent need to urinate and constipation. Ovarian cancer also leads to loss of appetite or feeling full soon after starting eating. Pain during sex is connected to malignant cancer condition as well as difficulty emptying one's bladder. Women are advised by doctors to always seek ovarian cancer screening on the

onset of the symptoms, especially when they occur almost daily for a period of 2 to 3 weeks (Society, American Cancer, n.d. ).

### **Prevention and Treatment**

There is no proven way of prevention of ovarian cancer in the world because even removal of ovaries and fallopian tubes may later lead to the development of primary peritoneal cancer. However, women may reduce their risk of developing ovarian cancer by taking birth control pills for more than ten years. Additionally, tubal ligation or entire removal of the tube decreases the risk of ovarian cancer. Although removal of fallopian tubes and ovaries may decrease the risks of development of ovarian cancer, science indicates that the removal may lead to other problems such as the risk of death due to heart disease. However, a woman with genetic abnormalities such as being positive of Lynch syndrome genetic defect, the removal of tubes and ovaries is an option to decrease their chances of getting cancer (Society, American Cancer, n.d. ).

There are different treatment of ovarian cancer such as surgery, radiation therapy, hormone therapy, chemotherapy, and targeted therapy. Surgery is the first option in the treatment of ovarian cancer with the aim of removing cancer although it depends on the stage of cancer. Salpingo-oophorectomy surgery may also be done to remove tubes and ovaries. Chemotherapy involves the use of medications to destroy cancer cells from the body. There are new chemotherapy medications that are enabling doctors to target the cancer cells. Hormonal therapy is a treatment to prevent estrogen from reaching cancer cells and thus slows the growth of cancer cells. The different cancer treatment methods do not guarantee success if the disease is at an advanced stage and thus, it is important for women to get early screening (Society, American Cancer, n.d. ).

### **Epidemiology Studies of the Disease**

The epidemiology of ovarian cancer shows that epithelial ovarian cancer is the most common cause of gynecological cancer. The most common standard of care for women with the advanced epithelial ovarian cancer according to Jayson, Kohn, Kitchener, and Ledermann is surgery and platinum-based cytotoxic chemotherapy. Additionally, the authors conclude that screening and early detection of the disease remains one of the basic aspects of curing the disease (Jayson, Kohn, Kitchener, & Ledermann, 2014).

### **Effect of the Disease on the Body's Homeostasis**

Ovarian cancer spreads with time beyond the ovary and into the abdominal cavity of the body. One of the ways which the cancerous cells affect the body homeostasis is a collection of within the abdominal cavity. A woman may realize that the pants they wear no longer fit her. Additionally, as cancer spreads, it may lead to accumulation of fluid near the lungs making one has difficulty breathing. In this context, the effects of ovarian cancer on the body's homeostasis depend on the time that elapses after the development of the cancerous cells in the ovary (Barakat, Berchuck, Markman, & Randall, 2013).

## References

- Barakat, R., Berchuck, A., Markman, M., & Randall, M. (2013). *Principles and Practice of Gynecologic Oncology*. Philadelphia: Lippincott Williams & Wilkins.
- Cancer Treatment Center of America. (n.d.). *Ovarian cancer symptoms*. Retrieved from Cancer Center of America: <https://www.cancercenter.com/ovarian-cancer/symptoms/>
- Global Burden of Disease Cancer Collaboration. (2015). The Global Burden of Cancer 2013. *JAMA Oncology*, 1 (4), 505-527.
- Habib, S., & Rojna, M. (2013). Diabetes and Risk of Cancer. *ISRN Oncology*, 16-25.
- Jayson, G., Kohn, E., Kitchener, H., & Ledermann, H. (2014). Ovarian cancer. *The Lancet*, 384 (9951), 1376-1388.
- Pergola, G., & Silvestris, F. (2013). Obesity as a Major Risk Factor for Cancer. *Journal of Obesity*.
- Society, American Cancer. (n.d. ). *Tests for Ovarian Cancer*. Retrieved from American Cancer Society: <https://www.cancer.org/cancer/ovarian-cancer/detection-diagnosis-staging/how-diagnosed.html>