Understanding Cervical Cancer

Chris Ryan September 27, 2013

Cervical cancer affects about 16 per 100,000 women per year and kills about 9 per 100,000 per year. Approximately 80% of cervical cancers occur in developing countries and worldwide, in 2008, it was estimated that there were 473,000 cases of cervical cancer, and 253,500 deaths per year.

The word cervix means neck, and it is the neck, or lower part of the uterus. The extension of this connects the uterus with the vagina. Cervical cancer is therefore actually extension or kind of uterine cancer. The ovaries are adjacent to the uterus via the fallopian tubes.

This is a very important cancer to learn about due to the early age that this can be detected and treated. Furthermore, cervical cancer is second most common and the fifth deadliest cancer in women in the world.

Additional Statistics
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What is the progression of cervical disease from pre-cancer to cancer?
In personal discussions with cancer experts at international conferences in Europe, Asia, and the US about whether cancer in situ, there was no universal agreement about this kind of cancer in the breast and cervix were real cancers or not. Over the years there is now more agreement that the cancers in situ are real cancers, just dominant. “In situ” from Latin means in place. Cancer in a localized place is one way to explain this. If it is localized and dormant, it is still real cancer. It has just not spread yet. From research by Dr Buckman, these cancers have a propensity to spread; they may not if the tumor environment is healthy. In addition, these cancers can be dormant for as many as 20 years.

The cells that are dominant cancer, or healthy cells that then get damaged DNA, then these cells mutate to cancer, both these types of cancer are very apt to spread if the micro-environment is toxic. Other factors that cause cancer activation are cells that are: inflamed, acidic, hypoxic, and with chemical imbalances (like bad estrogens and not enough progesterone), like exposure to heavy metals, hydrocarbons and other carcinogens.

Like Bob Beck’s book, the body electric, the electrical charges of the cells and cell environment are important determinant for health or disease. It is chemistry that determines the electrical components of the body electric. What all this means is that there are tumor microenvironments that cause activation or development of cancer cells or allow it to stay inactive. In carcinoma in situ, cancerous cells are limited to the surface area of the cervix.

Smoking
Smoking has also been linked to the development of cervical cancer. There are different ways that smoking can increase the risk of cervical cancer in women. These are due to direct and indirect methods of inducing cervical cancer. The direct way is getting CIN3, and an indirect means of developing this cancer by smoking is that it can lead to human Papilloma virus which can result in cervical cancer.

There are about 4,400 deaths in the US each year from cervical cancer. The average age of a woman with pre-invasive or very early cervical cancer is 38 years. The average age of invasive cervical cancer (which has spread deeper into the cervix or into nearby tissues and organs) is somewhat older, from 45 to 55. And, indeed, it probably takes about 10 years for a pre-invasive early lesion to become a more serious invasive cancer.

The known causative factors that predispose a woman to cervical cancer include early sexual intercourse, having multiple partners, more than five pregnancies, and a history of sexually transmitted diseases such as syphilis or gonorrhea. Another
known risk factor is if one's mother took DES (diethylstilbestrol) while she was pregnant.

**Human Papilloma Virus**

Probably the reason that early sexual activity and frequent partners predispose to cervical cancer is that women with that history are more likely to encounter viruses that can cause cancer like the human Papilloma virus (HPV), certain types of these viruses cause or trigger cancer, other types of HPV may not. Human Papilloma virus (HPV) infection appears to be a necessary factor in the development of over ninety percent of all cases of cervical cancer.

**HPV vaccines**

HPV Vaccines are effective against the two strains of this large family of viruses that currently cause approximately 70% of cases of cervical cancer that have been licensed in the U.S, Canada, Australia, and the EU. Since the vaccines only cover some of the cancer-causing high-risk types of HPV, women should seek regular Pap smear screening, even after vaccination.

**Different types of cervical cancer**

About 90 percent of all cervical cancers are squamous cell carcinomas, and these start out on the surface cell lining. Less than 10 percent are adenocarcinomas that involve glandular tissues, and are the most common kind of internal cancers.

Adenocarcinomas can be more difficult to diagnose, but are treated in much the same way as the squamous cell carcinomas. The survival rates are similar.

There are also several different subtypes of cervical adenocarcinoma. These include the most common endocervical type (60 percent of cases), the endometrioid (10 percent), clear cell (10 percent) and adenosquamous carcinoma (20 percent) types. There are also two rare types called small cell carcinoma and cervical sarcoma. In patients who are treated conventionally, these two have worse prognoses (likely outcomes) than the others.

**The new vaccine is making a difference**

The arrival of Gardasil, a vaccine against four of the most prominent strains of HPV, may eventually make an impact on the incidence of cervical cancer. However, much remains unknown. By neutralizing the four most prominently associated strains of HPV, we may in fact be opening the door to one of the hundred or so other strains of the virus that until now has not shown pathogenic tendencies - but may possibly develop them if the ecological balance of the cervical environment is shifted by the influence of the vaccine. While the average age of women suffering from the cancer that spreads deeper into the cervix, penetrating into the tissues and other organs aka invasive cancer, ranges from 45 to 55 years. And a pre-invasive cancer type requires at least 10 years forming into a more serious invasive type.

The known factors that cause a woman to contract cancer of the cervical are many including sexual intercourse at an early stage, having more than one sexual partner, getting pregnant more than five times, suffering from STDs in the past etc. studies have related the fact that women who take DES while expecting, maybe prone to such cancers. The reasons why having sex early in life and sleeping with multiple partners’ leads to cervical cancers because the women then become prone to the HPV virus and these help to trigger the cancerous process in the body.