

Cervical cancer gene discovery may boost remedy quest

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Cervical cancer comes in subtypes, said a study Monday that may boost the quest for life-saving treatments for a disease experts said is killing more women than previously thought.

Moreover, different subtypes have different causes, according to research by The Cancer Genome Atlas (TCGA), a network of US-based research agencies.

Gene analysis of some 200 cancers found that several were unrelated to the human papillomavirus (HPV), previously thought to cause virtually all cases of <u>cervical cancer</u>, it added.

This meant some cervical cancers may have "strictly genetic" causes, which could be targeted with personalised immunotherapy, said the study authors.

"The latest TCGA analysis could help advance efforts to find drugs that target important elements of cervical cancer genomes," said the National Cancer Institute, which took part in the analysis published in *Nature*.

Cancer of the cervix—the "neck" of the womb—is the fourth most common cause of cancer deaths among women worldwide, after breast, colorectal and lung cancer.

In poor countries with limited access to vaccines and screening facilities it is the top cancer killer of women.



Worldwide, cervical cancer accounts for more than half-a-million new cancer cases and over 250,000 deaths every year, said the study authors.

This, despite the fact that vaccines exist to prevent transmission of most of the cancer-causing forms of HPV, as do tests to screen women for the virus or pre-cancerous stages of disease.

More black women dying

The virus is mainly transmitted through sex.

Cervical cancer detected early can be treated with surgery or radiation, but becomes incurable if diagnosed after spreading to other organs.

A separate study published in *Cancer*, the journal of the American Cancer Society, said a woman's risk of dying from cervical cancer was higher than long believed.

This was particularly true for older and black women.

A team led by John Hopkins University Bloomberg School of Public Health researchers used a new method to calculate US mortality rates.

They excluded women whose womb and cervix had been removed in a hysterectomy, which removed the risk of cancer.

This created "a more accurate picture", the team said.

It revealed that black women in America were dying from cervical cancer at a rate 77 percent higher than previously thought, and white women at a rate 47 percent higher.

With the new calculation, cervical cancer mortality for black women



over 20 rose from 5.7 to 10.1 per 100,000, "a rate similar to less developed nations," the researchers note.

For <u>white women</u>, incidence climbed from 3.2 to 4.7 per 100,000.

The reason is not clear, said the team, though earlier research had found cervical cancer was more likely to be diagnosed at a later stage in <u>black</u> <u>women</u>.

Current guidelines do not recommend cervical cancer screening after the age of 65, but this may need to be changed, the authors said.

"These new findings suggests the risk remains—and even increases—in older women," said a statement.

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