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Understanding ovarian cancer: its causes, symptoms, and screening methods

This September, during Ovarian Cancer Awareness Month, understanding the cancer's lesser-known facts – from subtle symptoms to genetic and lifestyle risks – can lead to earlier detection, personalised treatment, and preventive strategies

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Note: The information in this article is provided as such and is not intended as medical advice. If you have any concerns, please consult your physician.

Ovarian cancer is the most lethal gynecological malignancy. It is often called a “silent killer” because its symptoms are non-specific and mimic less serious conditions that lead to late diagnosis and a poor prognosis. In India, ovarian cancer ranks among the top three cancers, contributing to 6.6% of all women's cancers.

In 2022, India reported 47,333 new ovarian cancer cases and 32,978 deaths. These alarming figures highlight the gravity of the disease. Understanding lesser-known aspects of ovarian cancer can enhance prevention, early detection, and treatment efforts, offering hope to patients and healthcare providers.

Unlike other cancers, ovarian cancer presents vague symptoms such as bloating, pelvic or abdominal pain, loss of appetite, feeling full quickly, and an urgent or frequent need to urinate. Other signs include indigestion, constipation, back pain, persistent fatigue, weight loss, and postmenopausal vaginal bleeding. These symptoms are often mistaken for common ailments, leading to late diagnosis. A 2004 study reported women with (malignant) ovarian cancer typically experience these symptoms 20 to 30 times a month, and which are more severe than those without the disease. Unfortunately, because of the overlapping nature of these symptoms with other common ailments, they can be dismissed until the cancer has advanced. Healthcare providers must be vigilant when women

report persistent symptoms.

Cancer subtypes and screening

Ovarian cancer is not a uniform disease. It has two main subtypes: type I and type II. Type I tumours are less common, typically diagnosed at an early stage, and have a better prognosis. Type II tumours are more common, more aggressive, usually diagnosed at an advanced stage, and are responsible for most deaths due to ovarian cancer.

The survival rate for patients with ovarian cancer depends on the stage of detection and access to appropriate treatment. Researchers reported in September 2022 that around 20% of patients with advanced ovarian cancer who receive optimal surgery and platinum-based chemotherapy could be disease-free at 10 years and might be considered potentially cured.

Unlike breast or cervical cancer, there are no effective screening tests for ovarian cancer. The CA125 blood test, often included in cancer screening packages, is not recommended for routine screening in women at average risk due to its limited specificity. While CA125 is useful to monitor ovarian cancer after diagnosis, it is less effective at screening asymptomatic women as it can lead to false positives and unnecessary further testing, anxiety, and potentially over-treatment.

Due to the absence of a reliable screening tool, awareness of risk factors and symptoms becomes crucial. Regular consultations with healthcare providers and discussions about family history can lead to earlier detection and better management of ovarian cancer.

Genes and endometriosis

While it's possible to develop ovarian cancer even without a family history of

breast or ovarian cancer, it's the most heritable of all cancers: 65-85% of hereditary ovarian cancer cases involve mutations in the BRCA1 or the BRCA2 genes. Women with these mutations have a significantly higher risk of developing ovarian cancer – up to 50% for BRCA1 and around 15% for BRCA2. Some other genes have also been associated with hereditary ovarian cancer.

Genetic testing allows for personalised risk management, including tailored clinical surveillance, chemoprevention, and prophylactic surgeries, which can reduce the risk of developing ovarian cancer in high-risk women. Endometriosis, a condition where uterine-like tissue grows outside the uterus, has been linked to an increased risk of certain types of ovarian cancer, particularly endometrioid and clear-cell cancers. This said, endometriosis-linked ovarian cancer risk is low and radical measures, such as a bilateral salpingo-oophorectomy, to prevent ovarian cancer alone are rarely justified.

Lifestyle factors

Certain lifestyle factors are linked to ovarian cancer risk. For example, the use of talcum powder in the genital area has long been debated, with mixed evidence about its potential link to ovarian cancer. In the past, some talc products contained asbestos, a known carcinogen, but the evidence regarding modern, asbestos-free talc is still inconclusive. Experts including the American Cancer Society have called for more research to settle these questions. Another emerging area of concern is the use of chemical hair products. Some studies have shown a possible link between the prolonged use of hair dyes and an increased risk of ovarian cancer.

Additionally, frequent use of hair straighteners, relaxers or pressing products that release formaldehyde gas – a known carcinogen – may elevate the risk of developing ovarian cancer. Again, more research is required.

HRT, menopause, and genetic counselling

Hormone replacement therapy (HRT), commonly used to alleviate menopausal symptoms, has been linked to a higher risk of ovarian cancer even when used for less than five years. Postmenopausal women considering HRT should weigh this risk against the benefits and explore alternatives with their healthcare provider to make informed decisions.

For women with a family history of ovarian or breast cancer, genetic counselling is a valuable tool. This process helps identify individuals at risk for hereditary cancers and provides tailored guidance on preventive measure and potential treatments. Through personalised risk management strategies genetic counselling can improve outcomes and help reduce the likelihood of developing ovarian cancer.

Ovarian cancer may be elusive, but knowledge is power. This September, during Ovarian Cancer Awareness Month understanding its lesser-known facts – from subtle symptoms to genetic and lifestyle risks – can lead to earlier detection, personalised treatment, and preventive strategies. Empower yourself and others with this knowledge – it can save lives.

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