Chemotherapy May Lead to Early Menopause in Young Women With Lung Cancer

New study is the first to comment on amenorrhea rates in the premenopausal population with lung cancer

CLEVELAND, Ohio (August 29, 2018)—A new study suggests chemotherapy may cause acute amenorrhea leading to early menopause in women with lung cancer. The study is the first to comment on amenorrhea rates in women younger than 50, concluding that women with lung cancer who desire future fertility should be educated about risks and options before starting treatment. Study results are published online today in *Menopause*, the journal of The North American Menopause Society (NAMS).

According to the Mayo Clinic, although the rate of lung cancer diagnoses in men has decreased by 32% since 1975, it has risen 94% percent in women and now has surpassed breast cancer as the leading cause of cancer death in US women. Although lung cancer is more common in older adults, women are diagnosed at a younger age compared with men, and approximately 5,000 premenopausal US women are diagnosed with lung cancer annually. Extensive research of women receiving treatment for breast cancer has found that between 40% and 80% have premature menopause. However, early menopause rates after lung cancer treatments are understudied.

Unique to the premenopausal survivor population is the concern that systemic chemotherapy may cause acute amenorrhea and menopause, leading not only to hot flushes, vaginal dryness, and bone loss but also the possibility of loss of fertility. Premenopausal women with lung cancer may want children and should consult their healthcare providers about options for embryo and oocyte cryopreservation, the gold standard for fertility preservation.

The study included 182 premenopausal women (average age at diagnosis, 43 years). The Mayo Clinic Epidemiology and Genetics of Lung Cancer Research Program surveyed women between 1999 and 2016 at diagnosis and annually thereafter about their menstrual status. Types of lung cancer treatments were recorded, and frequencies of self-reported menopause at each survey were calculated.

The results of the study appear in the article “Amenorrhea after lung cancer treatment.” Although the study is small, for the 85 women who received chemotherapy, 64% self-reported that they were menopausal within a year of diagnosis. Only 15% of the 94 patients who did not receive systemic therapy within a year of diagnosis experienced self-reported menopause. Three patients received targeted therapy alone, two of whom remained premenopausal at the final survey completed a median of 3 years after diagnosis. The results suggest that chemotherapy for patients with lung cancer increases the risk of the early loss of menses in survivors.

“Although more definitive research is needed, premenopausal women who need chemotherapy for lung cancer appear to have a similar risk of amenorrhea, early menopause, and loss of fertility as premenopausal women receiving chemotherapy for breast cancer and lymphoma,” according to Dr. JoAnn Pinkerton, executive director of NAMS. “I agree that premenopausal patients with lung cancer need to be educated about the risk for chemotherapy-related amenorrhea, menopause issues (hot flashes, vaginal dryness, and bone loss), and the potential loss of fertility before chemotherapy is initiated.”
For more information about menopause and healthy aging, visit www.menopause.org.

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Founded in 1989, The North American Menopause Society (NAMS) is North America’s leading nonprofit organization dedicated to promoting the health and quality of life of all women during midlife and beyond through an understanding of menopause and healthy aging. Its multidisciplinary membership of 2,000 leaders in the field—including clinical and basic science experts from medicine, nursing, sociology, psychology, nutrition, anthropology, epidemiology, pharmacy, and education—makes NAMS uniquely qualified to serve as the definitive resource for health professionals and the public for accurate, unbiased information about menopause and healthy aging. To learn more about NAMS, visit www.menopause.org.