Chemo ‘brain fog’ can refuse to lift

Memory hampered in breast cancer survivors

By Kathleen Fackettman
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Chemotherapy might change the way the brain works, triggering mild forgetfulness in some cancer survivors, says a small study out today.

The study of breast cancer survivors suggests the mental fog known as chemobrain might last longer than once thought and shows women treated with chemotherapy a decade ago still experience subtle memory problems.

The new findings may have implications not just for breast cancer patients but for other cancer survivors, says Ellen Coleman, associate executive director of CancerCare, a New York-based non-profit group for cancer patients and their families. Many of the 10 million U.S. cancer survivors have received chemotherapy, she says.

Previous studies have shown cancer survivors who had symptoms of chemobrain sometimes did poorly on memory tests, but the studies did not explain why.

Daniel Silverman, at the University of California, Los Angeles and colleagues recruited 21 women who had surgery to remove a breast cancer, including 16 who had been treated with chemotherapy from five to 10 years earlier.

The team gave the women short-term memory tests and took pictures of the brain with a PET scanner. They found that women who had the symptoms of chemobrain had changes in the way the brain’s frontal cortex functioned, Silverman said. The frontal cortex is associated with memory.

The team also found evidence the frontal cortex had to work harder to remember information on the memory test in women who had gotten chemotherapy.

There was no sign of any change in brain function in the controls — breast cancer patients who did not get chemotherapy or women who had never had cancer or chemotherapy. The findings appear in today’s online edition of Breast Cancer Research and Treatment.

Doctors used to prescribe chemotherapy mostly to treat breast cancer that had spread to other parts of the body, Silverman says. But now patients get chemo following surgery to lower the risk of recurrence. That approach saves lives, but it may also produce more survivors with symptoms of brain fog, he says.

Cancer patients shouldn’t forget chemotherapy because they are afraid of developing chemobrain, cautions co-author Patricia Ganz, a UCLA cancer specialist. Not every chemo patient will experience the symptoms of brain fog, she says.

This small study doesn’t prove chemotherapy actually causes forgetfulness. Depression can also cause mild memory loss, Ganz says.

From 25% to 82% of breast cancer patients suffer from chemobrain, studies suggest. Researchers have studied chemobrain mostly in breast cancer patients because they tend to live a long time after getting chemotherapy, but the brain fog may also affect other cancer survivors, Silverman says.

For example, Ellen Stovall, a lymphoma cancer survivor and president of the National Coalition for Cancer Survivorship, says she noticed problems with forgetfulness after getting high-dose chemotherapy in 1984. She says that this study goes a long way toward validating the notion that forgetfulness after chemotherapy can be real. “People do experience chemobrain,” she says. “It is not imagined.”