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ASCO Survey: Oncologists Less Happy with Work-Life Balance than Previously Thought

BY ERIC T. ROSENTHAL

he results of an American Society of Clinical Oncology survey of medical oncologists in the United States dealing with their satisfaction with "work-life balance" and their plans for retirement are contrary to some earlier assumptions—findings that an accompanying editorial called "startling."

Both articles are now available online ahead of print in the Journal of Clinical Oncology. The survey (doi: 10.1200/JCO.2013.53.4560) by Tait D. Shanafelt, MD, Director of the Department of Medicine Program on Physician Well-being at the Mayo Clinic, and colleagues found that the satisfaction was lower than that for all other medical subspecialists and that this dissatisfaction had a strong relationship with plans to cut back hours and leave current practices. This situation will likely adversely affect the pending oncologist shortage expected by 2020, the researchers said.

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NCCN Survivorship Guidelines Now Include Chemobrain

BALANCE

BY ED SUSMAN

OLLYWOOD, Fla.—A major hurdle in developing guidelines for the treatment of cancerassociated cognitive dysfunction—now usually called chemobrain—was first getting the medical field to believe that it actually existed. So said Elizabeth

Kvale, MD, Director of the Supportive Care and Survivorship Ourpatient Clinic at the University of Alabama at Birmingl



Burn Out

Alabama at Birmingham Comprehensive

Cancer Center, speaking here at the National Comprehensive Cancer Network's Annual Conference, "Advancing the Standard of Cancer

Care," discussing the NCCN's expansion of its Survivorship Guidelines to now include that problem.

Once it was established that the phenomenon was real and had wide impact, the next concern was convincing people who developed cancerassociated cognitive dysfunction that it was not a precursor of dementia. "We can tell our patients that it is likely that the cognitive dysfunction will go away on its own, but even if it doesn't it is not a progressive dementia-type disorder," she said.

No Increased MDS Risk in Men with Prostate Cancer Receiving RT

BY HEATHER LINDSEY

Men who receive radiation treatment for prostate cancer are at no greater risk for developing myelodysplastic syndromes (MDS) than the general population,



able online ahead of print in the *Journal of the National Cancer Institute* (*doi: 10.1093/jnci/djt462*).

Common thinking, passed down to oncologists and largely from review articles, has been that patients exposed to radiation or any type of chemotherapy who then develop MDS have therapy-related MDS, said Mikkael A. Sekeres, MD, MS, senior author of the study and Director of the Leukemia Program at Cleveland Clinic's Taussig Cancer Institute.

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Myeloma:

- Progression-Related Molecular Changes. .47





CHEMOBRAIN

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"Reassurance and watchful waiting are not unreasonable strategies for patients exhibiting symptoms of cancer-associated cognitive dysfunction. For most patients these symptoms will resolve on their own over the course of time. Reassuring them that this is not a progressive dementing condition is a perfectly reasonable thing to do.

"When we look at the qualitative experience of cognitive loss in the context of cancer treatment, patients say things like, 'My mind is just not as sharp as it was'; 'The total effect of the symptoms is a complete loss of confidence in myself'; and 'I now work 30 rather than 40 hours a week and I struggle to even do that much," Kvale continued.

"For a subset of patients, cancer and cancer treatment disrupt 'normal' cognitive functions. We know that this is very clearly the case in people who have primary brain tumors, brain metastases, and those who receive braindirected treatment such as prophylactic cranial irradiation. In those populations of patients, cognitive effects are anticipated, and generally we do a fairly good job of getting these people to rehabilitation where they address these things."

The Focus of the Guidelines

The guidelines focus on patients who do not receive central nervous systemdirected treatments but who may be experiencing cognitive change. "These changes have important quality-of-life and functional implications," Kvale said. "Generally, patients maintain stable global cognitive function, so they are able to get through much of their daily life without struggle, but they will notice difficulty in specific cognitive domains."

Estimates of how frequently this happens vary from 17 to 61 percent of patients receiving non-CNS-directed cancer treatment. That wide range may relate to various methodologies, she



ELIZABETH KVALE, MD: "Reassurance and watchful waiting are not unreasonable strategies for patients exhibiting symptoms of cancer-associated cognitive dysfunction."



said, explaining that much of the research involves cross-sectional studies that may not take into account patients' pre-cancer cognitive function.

"Longitudinal studies are necessary to evaluate this problem in cancer survivors, because the research can then look at both the cancer survivors' cognitive function prior to exposure to chemotherapy and after exposure to chemotherapy," she said.

Looking at Patients Longitudionally

In her presentation, she reviewed the neuropsychological testing, neuroimaging, and animal studies that demonstrate the existence and plausibility of the condition. "Most of the time when we look at patients longitudinally we demonstrate that there is an effect of cancer and cancer treatment," she explained. A recent meta-analysis demonstrated that in general patients exposed to standard chemotherapy regimens performed worse than nonbreast cancer chemotherapy patients in spatial ability.

"An interesting finding is that in some patients cognitive impairment precedes cancer treatment. If we compare those patients with a diagnosis of cancer with those who are not diagnosed with cancer—even at baseline even controlling for things like depression and emotional distraction during that period, the results suggest that there may be different mechanisms involved."

Neuroimaging can also show differences in the brains of cancer patients and non-cancer patients, she said. For example, in one study of identical twins asked to do cognitive challenges, the twin who had been exposed to chemotherapy activated greater areas of the brain than her twin. "We see this in larger studies as well," Kvale said.

"Patients exposed to chemotherapy activate more of their brains to accomplish cognitive challenges. It can also be seen as differences in the gray and white matter in the brain as visualized with diffusion tensor imaging."

In addition, a series of animal studies indicated that even trace amounts of chemotherapy agents are toxic to brain tissue. "While chemotherapy does not cross the blood-brain barrier sufficiently to treat cancer in the brain, enough chemotherapy may get through as the barrier becomes leaky in the context of inflammation, particularly when patients are exposed to serial treatments," she said.

General Principles

The general principles of the treatment guideline states: "Growing evidence supports the validity of the patient-reported experience of cognitive dysfunction associated with cancer treatment; there is modest correlation between patient reports of cognitive dysfunction and objective deficits with testing."

In addition, patients with focal neurological defects and those who have been diagnosed and treated for brain metastases of primary brain tumors should be directed to imaging and neuropsychological evaluation. ... Patients benefit from validation of their symptom experience, a thorough evaluation of this concern, and related issues and education."

However, the guidelines note, there is currently no effective brief screening tool for the problem. Kvale said the Mini Mental State Examination the ubiquitous test employed to assess mental condition in a variety of scenarios—lacks the sensitivity to find this kind of subtle decline in mental performance.

The guidelines suggest that clinicians treating patients who experience cognitive dysfunction should assess the patients' medications and possible side effects; hormone status; emotional distress such as depression and/or anxiety; symptom burden of pain, fatigue, and sleep disturbance; comorbidities; and use of alcohol or other substances that may affect cognition.

Patients exhibiting cognitive dysfunction should be instructed in enhanced organizational strategies such as the use of memory aids; should avoid multitasking; should limit the use of alcohol; and should exercise regularly.

In addition, second-time therapies could include the use of psychostimulants such as methylphenidate or modafinil.

"What you should take away from this talk is that this problem is a real phenomenon," Kvale said concluded. "We don't have a great sense of what causes it; we don't have a great sense about what we can do about it, but we do know this is about patient experience and we see those anatomic and physical functional differences in our studies that demonstrate that this is a real thing." "We can tell our patients that it is likely that the cognitive dysfunction will eventually go away on its own, but even if it doesn't, it is not a progressive dementia-type disorder."