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More long-term research on personalized cancer care for children with low-risk Hodgkin's lymphoma is needed, according to UAB Comprehensive Cancer Center scientists who commented in the June 27, 2012, issue of the *Journal of the American Medical Association* on a study that examined the consequences of adjusted radiation and chemotherapy for the disease.

Frederick Goldman, M.D., professor, and Kimberly Whelan, M.D., M.S.P.H., associate professor, both from the University of Alabama at Birmingham's Division of Pediatric Hematology-Oncology, wrote in a JAMA editorial that this research is especially important to balance lifetime disease control and prevent late effects of cancer treatment among children.

Hodgkin's lymphoma is a cancer originating from white blood cells that is spread among lymph nodes. It peaks in young adults ages 15-35 and those ages 55 and older. In recent years, cancer therapy plans have evolved from high-dose radiation and dose-intensive combination chemotherapy to multi-agent chemotherapies combined with low-dose radiation treatments.

Youths diagnosed with favorable-risk Hodgkin's lymphoma have a five-year overall survival rate greater than 90 percent. But cures have been accompanied by late treatment-related complications such as fatal secondary cancers or heart and lung disease that can affect the quality of life for young cancer survivors.

“Unfortunately few studies have been published that followed patients for long periods when late effects may appear, and it remains to be determined if limiting radiation exposure will be superior,” Goldman says.

However, the JAMA study reported survival at two years to be similar in children with low-risk Hodgkin lymphoma treated only with chemotherapy. These findings suggest that radiation therapy can be safely eliminated in a subset of low-risk patients who respond favorably to multi-agent, low-dose chemotherapy to reduce the risk of later complications.

In this study, 88 patients enrolled in five participating centers during a nine-year period received combination chemotherapy treatments and early disease-response radiologic evaluation. The early responders received two more courses of chemotherapy without radiation, and those with less-than-complete response received more chemotherapy and low-dose radiation. The average follow up time was 6.9 years.

The findings add to the growing body of evidence detailing the advantages of adjusting cancer treatment regimens that are based on individual patient needs and responses – personalized cancer care, a hallmark of care at UAB.

“While encouraging, these results must be corroborated in larger, randomized studies because earlier attempts to decrease the intensity of chemotherapy and omit radiation in select low-risk patients have not been as promising,” says Whelan, director of the Taking on Life after Cancer Clinic at Children’s of Alabama. “Nonetheless, the study underscores the importance of continued follow-up for survivors of Hodgkin’s lymphoma and all cancers.”

The UAB Comprehensive Cancer Center is among the 41 cancer centers in the nation to meet the stringent criteria for the National Cancer Institute's comprehensive designation. The center is a leader in groundbreaking research, reducing cancer disparities and leading-edge patient care.