Medulloblastoma patients should receive both chemotherapy and radiation post-surgery

New Haven, Conn. – In a recent study, a Yale Cancer Center team revealed that the addition of chemotherapy to postoperative treatment for adults with medulloblastoma improves survival. The benefit of chemotherapy, in addition to craniospinal radiation, was seen in adult patients with medulloblastoma (MB), including those with localized disease who received high-dose radiation treatment following surgery. The findings were presented September 26 at the American Society for Therapeutic Radiology and Oncology (ASTRO) meeting in Boston.

Medulloblastoma is the most common brain tumor in children, but is relatively rare in adults. Chemotherapy use in adult MB is largely based on pediatric outcomes, and its effectiveness has been unclear.

This study used the National Cancer Data Base to identify 751 patients diagnosed with MB over the age of 18 who underwent surgical resection for MB and post-surgical radiation. Of the 751 patients, 520 (69.2%) received chemotherapy and radiation therapy and 231 (30.8%) received only radiation therapy. Estimated overall survival at five years was 14.5% higher for patients who received chemotherapy and radiation compared to patients who received radiation alone (86.1% versus 71.6%).

“Our analysis is the first to clearly demonstrate the improved survival that chemotherapy adds post-surgery for adult patients with medulloblastoma,” said Benjamin H. Kann, MD, first author on the study and a Resident in the Department of Therapeutic Radiology at Yale School of Medicine. “We can now confidently support the addition of chemotherapy to radiation therapy for our patients who can tolerate both treatments.”

Addition of Chemotherapy to Adjuvant Radiation Therapy is Associated With Improved Overall Survival in Adult Medulloblastoma