

cell count decreased shortly after the six cycles were completed, we plan to extend this treatment for 1 year.

Optimizing Dose Homogeneity to the Cervical Spinal Cord in Craniospinal Irradiation: To Kick or Not to Kick?

Mary Koshy, MD, Robert B. Marcus, MD, Arnold C. Paulino, MD, Joseph Ting, PhD, and Sharahm Ghavidel, MS. Department of Radiation Oncology, Emory University School of Medicine, Atlanta, GA. Children's Hospital of Atlanta, Atlanta, GA.

The purpose of our study was to examine the effects of a variety of parameters, including placement of the junction, gap size, and table kick, on dose homogeneity at the junction during craniospinal irradiation. Two patients underwent CT simulation for medulloblastoma in May 2001. A dose of 36 Gy was administered to the entire neuraxis. The cervical spinal cord was outlined, and the dose delivered to this area was calculated using our CAD PLAN 3D Treatment Planning System. The mean, maximum, and minimum doses were calculated for each plan. Point doses at the junction were calculated at 1 and 5 mm in the cranial and caudal directions. DVHs were calculated for the cord for each plan and compared. For the low-junction plans, the presence of a table kick decreased the overall hot spot but increased the volume of cervical spinal cord administered an overdose. For high-junction plans, this volume increase was less significant. For the low-junction plan, implementing a 2-mm gap decreased the overdose to the cord caused by the table kick. The optimal low-junction plan was one that used a 2-mm gap and no kick. For the high-junction plans, the presence of a gap was associated with significant underdosage to the cord, with 100% of cord being administered 85, 75, and 55% of the dose when 2, 3, and 5 mm, respectively, were used. The optimal high-junction plan was one that did not use a gap or a table kick. A gap size of 2 mm and no table kick resulted in an optimal dose at the junction when using a low junction. When using a high junction, the predominant factor determining dose is the presence of a gap, which was associated with significant underdosage. The dose in this area is already diminished secondary to the increased neck thickness and depth of cord. Table kick was associated to a lesser degree than the low junction with overdose, and neither it nor feathering compensated for the underdosage caused by a gap. The optimal plan when using a high junction is no gap and no table kick. The optimal plans used in the low and high junctions were comparable.

Section on Otolaryngology—Head and Neck Surgery

Internet-accessible Medical Case-based Teaching Archive.

Christopher Chang, MD, Gregory Hulka, MD, Saleem Hussain, Susan Kansagra, BS, and Linda Gray Leithe, MD. Duke University Medical Center, Durham, NC.

Case-based teaching allows for the study of medicine through records of patient encounters. These cases used for reference and for teaching purposes are variably collected by clinicians as hard copies of patient files and radiologic films. Currently, a single repository of thorough, multidisciplinary, medical teaching cases that can be uniformly accessed, shared, and searched comprehensively by all medical professionals does not exist. An Internet-accessible database

(iCORD) that focuses on graphic audiovisual information along with text has been created. Users may create their own teaching case records to organize their files and share them with others. Case submissions are executed with a non-platform-specific application securely connected to the iCORD database. This submission tool and connector module were developed using Java and XML-related technologies. The data storage medium, which is an extendable SQL database used primarily to store patient case information, is exposed using IIS 5.0 and XML-based transformation tools to allow dynamic content delivery to PCs and handheld devices. Usage statistics, distributable teaching files, and user-centered information that are compiled in the iCORD database allow the development of useful case search algorithms. We have created a prototype database of 400 clinical otolaryngologic cases that is fully searchable using Boolean logic by parameters including age, sex, diagnosis, medical history, clinical key words, pathology key words, and more. Cases may contain associated pathologic slides, radiologic films, and/or intraoperative photographs. The database is accessible through the Internet using any commercially available browser. The database can be used as a teaching tool during conferences, as a case-authoring tool for physicians, and as an image-oriented reference resource during diagnostic dilemmas. In addition, health care professionals can also use the database to test their clinical and case management knowledge.

Section on Pathology

A Rare Cause of Generalized Lymphadenopathy.

Deborah S. Duffield, MD, Mukta Panda, MD, FACP, and Robert M. Magill, MD. University of Tennessee, Chattanooga, TN.

Generalized lymphadenopathy is a relatively common presentation that can occasionally be a manifestation of a rare disease. A 68-year-old black man with a medical history of hypertension presented with leg swelling and rash of 3 days' duration. He admitted to weight loss during the previous 2 or 3 years and night sweats during the previous 4 to 5 months. His examination was significant for bilateral groin, axillary, and left epitrochlear adenopathy. The patient also had nonpitting right-ankle edema and bilateral pretibial edema with bilateral medial ankle papular eruptions. Laboratory data revealed CBC significant for macrocytic anemia, and vitamin B₁₂, folate, BMP, TSH, RPR, HIV, PPD, and coagulation profile were normal. The diagnosis of angioimmunoblastic T-cell lymphoma (AITL) was established on the basis of axillary lymph node biopsy. The patient was treated with chemotherapy and responded with significant disease regression. AITL is a systemic disease characterized by generalized lymphadenopathy, fever, hepatosplenomegaly, hemolytic anemia, and polyclonal hypergammaglobulinemia. It usually affects older adults and presents with acute onset of generalized adenopathy, fever, weight loss, skin rash, and eosinophilia. The course is moderately aggressive with occasional spontaneous remission. Approximately 30% of patients have initial remission with administration of steroids alone, but most require some form of chemotherapy, and relapse is frequent. Median survival ranges from 15 to 36 months. Some patients develop secondary EBV⁺ large B-cell lymphoma. Infection is the most common cause of death. This case serves to remind physicians of a rare cause of a common presenting symptom. Timely tissue diagnosis may help improve the prognosis, especially when the disease is surprisingly aggressive despite an initial indolent course.