

Initiation of sphincter sparing treatment for squamous cell carcinoma of the anal canal in a North American Community Hospital

Robert C. Miller¹, Heidi Mattson²

¹Division of Radiation Oncology, Mayo Clinic and Mayo Foundation, Rochester, Minnesota, U.S.A.; ²Department of Medical Records, Immanuel-St. Joseph's Hospital-Mayo Health System, Mankato, Minnesota, U.S.A.

Objective. In the United States, increasing numbers of patients are choosing to receive oncological therapy in small community cancer centers rather than in academic centers of excellence. Providing optimal therapy for uncommon malignancies such as anal cancer in the community setting can be challenging. In a hospital-based cancer center located in a rural community of 35,000, a combined modality approach to the treatment of squamous cell carcinoma of the anal canal was implemented in 1999. After one year, the results and toxicity of treatment were analyzed.

Materials and Methods. Patients received an initial 30.6 Gy to 36 Gy of external beam radiotherapy (EBRT) to the lower pelvis, inguinal lymph nodes, and anal canal in 1.8 Gy daily fractions, five days/week. A total dose of 50.4 to 59.4 Gy EBRT was delivered to the primary tumor using 3-D treatment planning and shrinking fields. Total dose was dependent on tumor response and exclusion of the small bowel from the final boost volume. The regional radiation oncologist, using a dedicated teleradiography system linking the regional center with the primary academic cancer center, reviewed all treatment plans with a sub-specialist radiation oncologist with an interest in GI malignancies.

Chemotherapy was delivered concurrently with EBRT. Cis-platinum or Mitomycin-C, at the discretion of the treating medical oncologist, was administered on Day 1 and Day 28. 5-Fluorouracil, delivered as either a 96-hour continuous infusion or daily bolus injections, was administered on Days 1-4 and Days 28-31.

A community surgeon and/or gastroenterologist evaluated the patient eight weeks after completion of therapy. A biopsy was performed at the discretion of the endoscopist. The treating oncologists also evaluated patients at eight weeks post-treatment and at three-month intervals thereafter.

Results. At the time of presentation, length of follow up, short term tumor control rates, and acute and delayed toxicity rates will be discussed.

Conclusion. A combined modality approach to the treatment of anal canal malignancies in the community setting is technically feasible with modest, but tolerable, acute toxicity. Difficulties in delivering definitive therapy in an uninterrupted fashion will be addressed at the time of presentation.

Correspondence to: Robert Miller, M.D., Radiation Oncology Mayo Clinic, 200 First St. S.W., 55905 Rochester, Minnesota, USA. Phone: +1 507 345 2960; Fax: +1 507 389 4684; E-mail: Miller.Robert@mayo.edu