Concurrent radiotherapy and chemotherapy with cisplatin in inoperable squamous cell carcinoma of the head and neck. An RTOG Study

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In patients who have locally advanced and inoperable head and neck cancer, the achievement of initial local control (complete response) of the disease with initial definitive treatment with radiotherapy (RT) with or without chemotherapy, is an important prognostic factor for overall survival. Cisplatin 100 mg/M2-intravenously (IV) with hydration and mannitol diuresis was given every 3 weeks for three doses concurrently with definitive radiotherapy (followed by salvage surgery if possible for persistent disease) was activated by the Radiation Therapy Oncology Group (RTOG) in 1981. One hundred thirty-four patients were initially registered and 124 were eligible and analyzed for this report. Eighty-two percent of the patients had Stage IV disease and greater than 50% of the primary sites were in oropharynx (39%), nasopharynx (22%), and oral cavity (18%). Eighty-seven percent of the patients are known to have finished the planned RT greater than 6450 cGy and 60% received three courses of cisplatin. Overall, 60% finished the planned combined treatment. Complete response to initial treatment occurred in 69% and an additional one patient (1%) was rendered disease-free after radical node dissection. Severe toxicities were as follows: leukopenia, 11%; anemia, 8%; nausea and vomiting, 6%; stomatitis, 31%; and renal, 6%. One toxic death occurred when a nephrotoxic antibiotic was administered at the same time. All patients were evaluated for total disease and survival regardless of compliance to the treatment or the cause of death. At 1 year, an estimated 51% of the patients had their disease totally controlled and an estimated 66% were alive. Incidence of initial complete response by various patient characteristics also were analyzed. The authors concluded that the combination of cisplatin and radiotherapy is an effective and safe treatment in patients with advanced head and neck cancer and needs to be tested against radiotherapy alone.

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