

Conservative treatment for carcinoma of the anus – a report of 35 patients

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Received September 11, 2002

Conservative treatment for carcinoma of the anus has become the standard care for this malignancy. In this study we report on our experience with this method with particular emphasis on treatment outcome and acute toxicity. Between April 1991 and February 2002, 35 patients (male/female ratio 0.35) with UICC T₁₋₄N₀₋₃M₀ squamous cell carcinoma of the anal canal or anal margin were treated with chemo-radiation (31 patients) or radiotherapy alone (4 patients). Three patients had previously undergone local tumor excision with anus preservation. The total tumor dose of 48 to 60 Gy was delivered either by split-course or continuous radiation therapy to the pelvis, followed by a local boost to the primary tumor. Chemotherapy included one or two cycles of mitomycin C (10–15 mg/m² day 1) and 5-fluorouracil (450–750 mg/m² day 1 to 4 or 5) given during the first and the last part of irradiation. Complete tumor remission was obtained in 26 (76%) out of 34 evaluable patients. Clinically persistent disease was found in five (17%) and three (7%) patients treated with chemo-radiation and radiation alone, respectively. In four of these cases salvage surgery was performed. With a median follow-up of 49 months (range 2–131 months) local recurrence occurred in four patients (12%), and distant metastases – in two (6%). Overall, local treatment failure was observed in twelve patients (35%) including eight with T₃ and one with T₄ tumor. Local control was maintained until the last follow-up or death in 22 patients (65%). An actuarial 5-year overall and colostomy-free survival rates were 63% (CI, 45–81%) and 45% (CI, 25–64%), respectively. Nineteen patients (54%) experienced acute toxicity, predominantly hematologic and gastrointestinal, and severe effects including one death occurred in 11 patients (31%). Late sequelae including chronic diarrhea, edema of genitalia and legs, impaired sexual activity, and bone fractures were observed in eight patients (24%). Moderate anal stool incontinence occurred in three patients (9%). In conclusion, conservative management of anal carcinoma allows durable colostomy-free survival in a proportion of patients. However, the risk of local failure is relatively high in patients with large primary tumors. Combined chemo-radiation is associated with relatively high rate of acute toxicity.

Key words: Anal carcinoma, radiation, chemo-radiation, normal tissue reactions.

Cancer of the anus is a rare malignancy, representing approximately 5% of the lower gastrointestinal tract tumors. This neoplasm is divided into two groups: cancer of the anal canal and cancer of the anal margin. Anal cancers are more common in women and the median age at diagnosis is about 60 years [2]. The risk of this tumors increases in human immunodeficiency virus (HIV)-infected patients. Malignancies arising from the epithelium of the anus are mostly squamous cell of various types including cloacogenic, basaloid, transitional, or mucoepidermoid carcinomas. Most of these tumors are poorly or moderately differentiated. They grow in a diffuse manner and infiltrate widely beyond palpable mass. Recently, sphincter sparing therapy has widely replaced previously used abdominoperineal resection as the standard first line treatment of anal

cancer [1, 4, 5, 8, 14, 18, 24, 25]. Most commonly, conservative therapy consists of radiation therapy and concomitant chemo- radiotherapy with 5-fluorouracil (5-FU) and mitomycin C (MMC), as introduced by NIGRO et al in 1974 [17]. Surgery is now reserved for recurrent tumors and tumors resistant to conservative therapy.

Conservative therapy of anal cancer was introduced at our institution in 1991. In the present article we present our experience with this method.

Material and methods

This retrospective review includes a series of 35 consecutive patients (26 females and 9 males) with localized histo-