A Case Report of Stage IV A Vulvar Carcinoma: Therapeutic Response to Intra-Arterial Chemotherapy Followed by Radiotherapy

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SUMMARY

Objective: Our aim is to investigate the results of conservative treatment in a patient with advanced vulvar cancer.

Material and Method: This study was performed MD Anderson Cancer Center, Department of Gynecologic Oncology. We present a 43-year-old patient who was treated intraarterial chemotherapy followed by radiotherapy for stage IVA vulvar cancer.

Results: She has no evidence of disease for 10 years.

Conclusion: Some very early lesions may be require only wide local excision for cure. However, as seen in this case, where extensive lesions may need more than the traditional radical vulvectomy, for example, radiation or chemoradiation therapy in addition to surgery.

Key Words: Intraarterial chemotherapy. Radiotherapy, Vulvar cancer

TKlin Jinekol Obst 1996, 6:183-184

Cancer of the vulva is uncommon, accounting for 5% of gynecological malignancies, and usually occurs in women older than 60 years (1). The management of vulvar carcinoma must be individualized to produce the best results in terms of patient survival and morbidity. Some very early lesions may be require only wide local excision for cure whereas extensive lesions may need more than the traditional radical vulvectomy, for example, radiation or chemoradiation therapy in addition to surgery (2, 3). In this case report, we present a 43-year-old patient who was treated intraarterial chemotherapy followed by radiotherapy for stage IVA vulvar cancer. She has no evidence of disease for 10 years.

A Case Report

BT was a 43-year-old G1 P1, black female who was referred with a diagnosis of squamous cell carcinoma of the vulva. Pelvic examination revealed a large exophytic lesion that was involving essentially the entire vulva extending anteriorly and laterally to involve both of the inguinal regions (Figure 1). A CT-scan of the abdomen and pelvis revealed bilateral lymphadenopathy in the pelvis. Other remarkable findings included a barium enema and proctoscopic examination that revealed anterior rectal involvement with tumor for approximately the distal 5 cm of rectum. A biopsy was taken from the gross exophytic tumor that was involving essentially the entire vulva extending anteriorly and laterally to involve both of the inguinal regions (Figure 1). A CT-scan of the abdomen and pelvis revealed bilateral lymphadenopathy in the pelvis. Other remarkable findings included a barium enema and proctoscopic examination that revealed anterior rectal involvement with tumor for approximately the distal 5 cm of rectum. A biopsy was taken from the gross exophytic tumor. Pathologic report revealed invasive non-keratinizing squamous cell carcinoma in subepithelial stroma. The patient was given three courses of intra arterial chemotherapy over 52 hours which contained cisplatin 100 mg/m2, bleomycin 35 mg/m2 and mitomycin C 10 mg/m2. Unfortunately, she developed bleomycin-lung toxicity after third course. For that reason, subsequent chemotherapy excluded bleomycin. The patient received two more cycles of cisplatin and mitomycin-C. After the completion of chemotherapy, the patient received 47 Gy tumor dose in 23 fractions over a five week period to a field encompassing the primary vulva and true pelvis with anterior and posterior parallel-opposing 6 MeV photon portals. After treatment, bimanual pelvic examination revealed marked radiation changes including stricture, depigmentation, and...
scarring without any evidence of disease (Figure 2). Follow-up visits were performed regularly. Physical examination was normal. Lymph node survey was negative. Pelvic examination revealed no recurrent masses, but there were stricture, depigmented areas, and scarring on the vulva. A repeated CT-scan of the pelvis and abdomen was normal. Chest-x-ray was negative. A repeated vulvar biopsy revealed no evidence of disease.

She currently has no evidence of disease 10 years after initial therapy.

**DISCUSSION**

Although the radical vulvectomy with bilateral inguinal lymph node dissection is traditional therapy for vulvar cancer, in recent years, less radical procedures have been used as an alternative therapeutic approach in combination with radiotherapy or chemoradiation. Therapeutic utilization of intraarterial chemotherapy was initially reported by Kloop et al (1950) for treatment of head and neck cancers (4). In 1975, Cavanagh et al (5) treated 40 patients (27 evaluable) with a diagnosis of cervical, vulvar, or corpus cancer and no prior radiation by using intraarterial 5-fluorouracil, methotrexate, nitrogen mustard, Cytoxan, and vincristine. Their results revealed 8 partial responders with a median survival time of only 5 months (4). Kavanagh et al (6) utilized intraarterial chemotherapy followed by radiotherapy for advanced gynecologic cancer. The same study group reported that 49 patients treated with intraarterial chemotherapy followed by radiotherapy for advanced squamous cell carcinoma of the cervix, and vaginal carcinoma (7). The five year survival rate was 30%, with a median survival of 18 months. The treatment regimen utilized in this study achieved a satisfactory clinical response and improved dosimetry, but failed to improve 5-year survival.

However, the true impact of intra-arterial chemotherapy given prior to radiotherapy will require prospective randomized clinical trials.

**REFERENCES**