Originals

Vulvar carcinoma: a retrospective analysis of 80 patients

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Abstract. We evaluated the files of 80 women who were treated for vulvar carcinoma. In 13 women radiotherapy was used as primary treatment, in 45 cases postoperatively and in 22 women because of local recurrence. Patients older than 60 years had a significantly worse 5-year survival rate (39%) than younger women (57%) (p = 0.02). The 5-year survival rate for patients with negative nodes was 72% versus 46% for the N1- and 47% for the N2-status, respectively (p = 0.027). The 5-year actuarial survival rate for patients with tumor manifestation in the clitoris was 77.9% versus 26.1% for patients with tumors in the labia majora (p = 0.0044). There was no difference in survival in patients who had been treated with radical vulvectomy and bilateral groin dissection plus local radiotherapy when compared with patients who had been irradiated (whole pelvis) after tumor resection alone. The 5-year survival rates and the median survival time were identical in both groups (61%/62 months).

Key words: Vulvar carcinoma – Retrospective analysis – Outcome – The role of radiotherapy

Introduction

Vulvar carcinoma makes up 3–4% of all female malignancies [1, 4, 17] but this number is increasing [12]. Most of the tumors become manifest in the seventh decade of life [8, 16] and most of them are squamous cell carcinomas [18]. The curative treatment for invasive carcinoma of the vulva is generally believed to be radical vulvectomy with bilateral inguinal lymph node dissection [22]. The role of radiation therapy is as yet not exactly defined [19]. In the last years radiation therapy often has been reserved for those patients who are not eligible for surgery because of poor health or because of tumor size. Because of the low incidence of the tumors only limited clinical studies exist which try to
define the value of each treatment modality and the results are contradictory \cite{10, 12, 21}.

We therefore did this review to help define the role of radiotherapy versus surgery.

**Patients and Methods**

We studied the files of 80 patients with vulvar carcinoma.

13 patients were irradiated only because of bad performance status and gross tumor manifestation.

In 45 patients resection was combined with radiotherapy – 22 patients underwent radical vulvectomy and bilateral groin dissection and 23 patients had a conservative operative procedure without groin dissection (2 patients with hemivulvectomy, 7 patients with simple tumor extirpation, 14 patients with wide tumor resection).

In the first group \((n=22)\) 12 patients had histological evidence of inguinal node involvement; in the second group \((n=23)\) lymph node involvements as diagnosed in 9 cases (proven clinically and by imaging procedures). After radical vulvectomy and groin dissection only the region of the vulva was irradiated. Patients who did not have groin dissection had radiation to the whole pelvis. The radiation dose varied between 40 and 60 Gy. The median dose of irradiation being calculated as 50 Gy (range 20–60 Gy). The size of single doses was between 1.8 and 2.0 Gy. The patient was treated in the supine position, using opposed ap/pa portals up to a dose of 40–50 Gy. An additional dose (10 Gy) was delivered to the primary tumor region and to the inguinal lymph node region when lymph node metastases were thought to be present.

22 patients irradiated were treated by radiation alone for a local recurrence.

FIGO staging was as follows: 12 patients belonged to stage 1, 8 patients to stage 2, 28 patients to stage 3 and 10 patients to stage 4. Patients with recurrences were not staged.

70\% of patients were in the 6th or 7th decades of their life. The median age was 67.8 years (range 26–86 years). Only 18\% of the women were younger than 60 years.

In 40\% we found a lesion in the labia majora, in 12.5\% in the region of the labia minora, in 13.5\% in the clitoral region and in 15\% the tumor was located in the posterior commissure. In 18.8\% the tumor was outside these locations.

All tumors were histologically examined. 74 (92.5\%) patients had a squamous cell carcinoma and 6 (7.5\%) patients had an adenocarcinoma. 31\% had a highly differentiated tumor, 57\% of tumors were moderately differentiated and 12\% were undifferentiated.

Survival rates were calculated according to the method of Kaplan-Meier \cite{11}. The differences between pairs were analysed by the log-rank-test.

**Results**

The 5-year survival rate of all patients with stage 1 tumors was 68.2\%, falling to 62.2\% in stage 2, 50.6\% in stage 3 and 40\% in stage 4. This makes a median survival rate of 82.8 months in stage 1, 120 months in stage 2, 36.3 months in stage 3 and 14 months in stage 4. The 5-year survival rate after radiotherapy alone was calculated to be 31.2\% with a median survival time of 11 months. For patients with recurrences the 5-year survival rate was 13.6\% and the median survival time was 8 months.

Surgery plus irradiation had a 5-year survival rate of 61.1\% with a median survival time of 62 months.

The 5-year survival rate for patients who had been treated with radical vulvectomy, bilateral groin dissection and local radiotherapy was 60.9\% versus 60.8\% for patients who had whole pelvis irradiation after more conservative resection. The median survival time of 62 months was identical in both groups.