

Case Reports

Case reports are accepted under this heading. These reports should be short and concise and contain a minimum of figures, tables and references.

BREAST ANGIOSARCOMA AFTER RADIATION THERAPY

Angiosarcoma after radiation therapy for breast-conserving treatment of breast carcinoma is a rare primary breast malignancy, with only 16 cases reported to date (1, 2). We here describe a new case of breast angiosarcoma, previously treated with tylectomy and radiation therapy.

Case report. A 73-year-old woman underwent tylectomy of a carcinoma of left breast and axillary lymphadenectomy in August 1986. The tumor measured 2 cm at its greatest diameter and one lymph node of the 9 removed was affected. The tumor tissue presented high levels of estrogen receptors.

Postoperative radiotherapy was delivered to the left breast and to supraclavicular, axillary and internal mammary lymph nodes, with 15-mV photon beams using a lineal accelerator, until a total dose of 40 Gy was reached over the described areas. Electron-beam irradiation was continued over the same fields until a dose of 50 Gy was reached. Once therapy was completed, a boost of 10 Gy was administered over the primary breast site, using a direct anterior field of 9-meV electrons.

The patient's course continued without evidence of tumor until November 1992, when a mass filling almost the entire left breast, accompanied by skin thickening, was detected. Moderately differentiated angiosarcoma with a low mitotic rate was seen at biopsy. Radical surgical extirpation was ruled out, and the patient received four courses of chemotherapy combining iphosphamide and VP-16. The treatment achieved an important reduction of angiosarcoma size, and simple mastectomy was performed in May 1993. In November 1993, a recurrence over the mastectomy scar was evidenced, and the patient underwent en bloc excision (major pectoral muscle, lower third of sternum and 8th, 9th and 10th ribs).

The patient died in August 1994, with metastatic spread including skin recurrence over the aforementioned area.

Discussion. Since 1987, when Body described the first case of breast angiosarcoma after radiation therapy for invasive ductal carcinoma, 16 more cases have been published (1-3). Those authors who have studied the relation of total radiation dose, orthovoltage or megavoltage radiation and dose per fraction to the frequency of appearance, have found no significant differences (4).

The interval between the start of radiation therapy for a first tumor and the diagnosis of a postirradiation sarcoma is about 12 to 13 years. Differences have been reported in the median interval depending on the type of radiation received by the patients, viz. 15.9 years for orthovoltage radiation and 7.4 years for megavoltage radiation (5). Among the patients with postirradiation angiosarcoma described to date, the latency period was 6.1 years (2.5 to 12.6) (4).

The median age at presentation of this tumor is 64.5 years. The cause of its failure to appear in younger patients is unknown, despite the great number of patients that receive radiation therapy at early ages after partial surgical breast resection (6).

We think that it is important to study histologically every lesion suspected of being associated with recurrence after breast-conserving treatment to determine the exact incidence of this second primary tumor, taking it in consideration prior to radiation therapy in elderly patients.

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REFERENCES

1. Del Mastro L, Gueuzi M, Cafiero F, Nicoló G, Rossa R, Ventruini M. Angiosarcoma of the residual breast after conservative surgery and radiotherapy for primary carcinoma. *Ann Oncol* 1994; 5: 163.
2. Buatti JM, Harari PM, Leigh BR, Cassady JR. Radiation-induced angiosarcoma of the breast. Case report and review of the literature. *Am J Clin Oncol*. 1994; 17: 444-7.
3. Givens SS, Ellerbroek NA, Butler JJ, Libshitz HI, Hortobagyi GN, McNeese MD. Angiosarcoma arising in an irradiated breast. A case report and review of the literature. *Cancer* 1989; 64: 2214-6.
4. Davidson T, Westbury G, Harmer CL. Radiation induced soft-tissue sarcoma. *Br J Surg* 1986; 93: 308-9.
5. Wiklund TA, Blomqvist CP, Raty J, Elomaa I, Rissanen P, Miettinen M. Postirradiation sarcoma. Analysis of a nationwide cancer registry material. *Cancer* 1991; 68: 524-31.
6. Edeiken S, Russo DP, Knecht J, Parry LA, Thompson RM. Angiosarcoma after tylectomy and radiation therapy for carcinoma of the breast. *Cancer* 1992; 70: 644-7.

ACUTE RENAL INSUFFICIENCY DUE TO VIRAL INFECTION CAUSED BY CYTOMEGALOVIRUS (CMV) DURING TREATMENT WITH METHOTREXATE

In October 1993, a 65-year-old man was admitted to the Department of Oncology of Helsinki University Central Hospital for treatment of large B-cell malignant lymphoma involving the sigmoidal part of the large bowel. This local and only tumour found after examinations including whole body computer tomography was radically excised. Adjuvant treatment with three BACOD-M courses (bleomycin, doxorubicin, vincristine, cyclophosphamide, dexamethasone, and high-dose methotrexate (HDMTX)) was initiated. Two BACOD and the first HDMTX were given without complication. The second HDMTX was given as planned 5.6 g on day 15 after BACOD, in December 1993. The patient did not complain of any symptoms and all laboratory values, including creatinine, were normal. On day 2 after HDMTX, the patient had fever up to 39°C. Serum concentration of methotrexate (MTX) was 1.45 Umol/l, creatinine was 85 Umol/l, and C-reactive protein (CRP) 40 g/l. The patient had no other sign of infection, and blood culture tests were negative. On day 3 after HDMTX, creatinine rose to 227 Umol/l and serum concentration of MTX decreased to an acceptable value of 0.24 Umol/l. CRP was 28 g/l. Diminution of urine secretion was noticed. Control creatinine was 356 Umol/l on day 4. Renography demonstrated decreased renal function in both kidneys. Intensive diuresis