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Letters

Angiosarcoma of the Breast Following Conserving Treatment for Breast Cancer

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A NUMBER OF cases of angiosarcoma of the breast have been described following conserving therapy for breast cancer [1–6]. Between 1980 and 1990, we have treated about 700 patients with radiotherapy following lumpectomy for early stage breast cancer and 2 of them (0.3%) developed angiosarcoma of the breast.

In 1986, a 67-year-old woman underwent a lumpectomy with axillary node dissection for a tumour in the upper outer quadrant of the right breast. Histology showed a 1.5 cm, radically removed, invasive ductal carcinoma, without nodal metastases. Postoperative radiotherapy was given through tangential breast fields to a dose of 5000 cGy (25 fractions), followed by an external boost dose of 1400 cGy. After treatment, there was moderate oedema of the right arm and breast. Fifty-six months after radiotherapy, a purple-red discolouration was seen in the lower outer quadrant of the right breast. A mastectomy was performed. Six separate lesions were diagnosed as angiosarcoma of the skin. They were removed radically and there was no invasion of breast tissue. Two year later, the patient is alive with no evidence of disease.

In 1987, a 75-year-old woman underwent breast conserving surgery for a tumour in the upper outer quadrant of the right breast. A single incision was used for removal of the primary tumour and the axillary node dissection. Histology showed a 1.7 cm, radically removed, invasive ductal carcinoma, without nodal metastases. Postoperative radiotherapy was given to the right breast (5000 cGy in 25 fractions plus 1300 cGy external boost) and axilla (3000 cGy in 15 fractions). Following treatment, there was mild oedema of the right breast, but no oedema of the arm. Fifty-two months after radiotherapy, a purple-red discolouration at the border of the lateral upper and lower quadrant was detected. Mammography showed a thickening of the skin in this area. The patient underwent a mastectomy. Two radically removed angiosarcoma tumours were found in the subcutaneous fat tissue, at a distance of 5 cm from the original scar (Fig. 1).

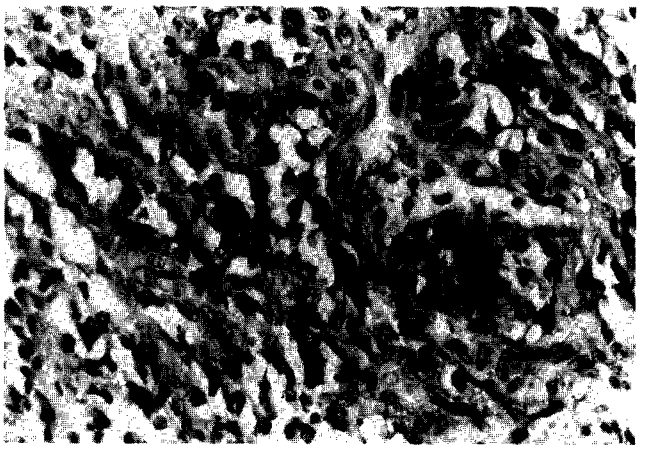

Fig. 1. Angiosarcoma of the breast. Diffuse atypical endothelial proliferation with formation of lumina, filled with erythrocytes (haematoxylin–eosin; x 320).

Two months later, multiple recurrences occurred around the mastectomy scar. Combined radiotherapy-hyperthermia was given to the thoracic wall. After 6 months, palliative radiotherapy was given for metastases of the angiosarcoma in the contralateral axilla. After 9 months, she is alive without evidence of other distant metastases.

The pathogenesis of angiosarcoma of the breast is unclear. Radiation may play a role in the development of sarcomas, with usual latency times of 10–20 years [7]. The latency time for angiosarcoma following conserving breast cancer treatment is generally shorter (5–10 years). This might indicate a different mechanism of pathogenesis. Additionally, radiation-induced tumours are seen predominantly in the low-dose area, while angiosarcomas of the breast have occurred inside the high-dose area. Angiosarcoma has been described following conserving surgery without radiation therapy [8]. Lymphoedema is a well-known factor in the development of angiosarcoma [9], and radiotherapy of the breast may contribute to the development of oedema. The 2 patients described in this report both had mild or moderate oedema of the breast. The role of radiotherapy may be indirect by promoting lymphoedema, rather than by direct tumour-induction.

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Let's Stop Worrying About Pigmented Skin Lesions in Children

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THE OPINION that cutaneous melanoma (CM) arises only after puberty is widespread among non-specialists. In fact, although the disease is well documented in prepubescent children [1, 2], its incidence is so low that it should not be a major concern for the pediatrician or general practitioner, nor indeed a source of stress to parents who are now much more aware of the increasing incidence of the disease. To identify guidelines for managing pigmented skin lesions in paediatric patients, we retrospectively reviewed cases excised and histologically examined at the National Cancer Institute, Milan, over 16½ years.

A total of 632 children (285 males, 347 females; age range 1–14 years, mean 10.6, median 11 years) had their melanocytic naevi removed surgically from January 1975 to June 1992. Of the 656 lesions removed, 577 were excised under local anaesthesia at the day hospital, and 79 under general anaesthesia. Only 2 (0.30%) were subsequently diagnosed histologically as CM.

Excluding the 45 cases of lesions > 2 cm in maximum diameter—and excised for aesthetic reasons or because considered at risk for development of malignancy—611 cases remain in which the decision to remove the lesion for histological examination was based on clinical perplexity, or the erroneous belief, widespread in the 1970s, that pigmented skin lesions with the clinical characteristics of junctional naevi could develop into CM. In only 31 cases was the preoperative clinical diagnosis suspect CM [including the 2 (6%) confirmed histologically].

When approaching pigmented lesions in children, it is important to bear in mind that although it may present atypically, CM is rare: our 2 cases of primary paediatric CM constituted only 0.09% of all the CMs (2150) observed and treated over the period considered.

At our outpatient clinic, the ratio between histologically diagnosed CM and pigmented skin lesions removed is currently 1:4.8; our much less impressive long-term ratio for paediatric lesions is 1:306, and due more to past "overdiagnosis" arising from false beliefs and emotional factors than to real problems with the differential diagnosis of naevi and melanoma. When CM presents with its typical clinical features [3, 4] it does not pose diagnostic difficulties, while atypical forms of CM (pedunculated or nodular, partially or totally amelanocytic lesions) are admittedly more problematic; these are rarer, however, and have been amply described in children [5, 6]. Alternatively, darkly pigmented benign naevi may often resemble CM, as testified by the fact that of the 29 suspect lesions that were not malignant 20 were dark (33% Spitz and 13% congenital).

We conclude that diagnostic excision of a pigmented skin lesion in children is only warranted if there is a well-founded clinical suspicion of malignancy or if the lesion evolves quickly or has atypical morphology; in cases where perplexity remains, we suggest continued observation (annually until puberty). Where excision is justified, the width should be limited (2–3 mm from lesion margins) for functional and aesthetic reasons: histologically confirmed CM can be radicalised later. By following these guidelines, we have drastically reduced the number of such operations in children at our institute, sparing many children and parents unnecessary stress, avoiding complications and conserving medical resources.

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Phase I Clinical Trial of Gemcitabine Given as an Intravenous Bolus on 5 Consecutive Days

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GEMCITABINE (DIFLUORODEOXYCYTIDINE, LY188011) is a deoxycytidine analogue of cytosine arabinoside. In model systems it has an altered metabolism and better activity in solid tumours [1, 2]. Because of the promising preclinical antitumour activity, phase I studies of gemcitabine were undertaken.

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