Spontaneous Regression of Metastatic Malignant Melanoma

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CASE REPORT

Abstract. Spontaneous regression of metastatic malignant melanoma is rare. A case is presented here. The primary lesion, a lentigo maligna melanoma of the face, recurred after excision and metastasized to the parotid and upper cervical lymph nodes, and to the lungs. The patient declined further therapy. There was no clinical or radiologic evidence of metastasis 1 year later.

Although rare, spontaneous regression of cancers has been documented.[1,2] "Spontaneous regression" means partial or complete resolution of a tumor in the absence of any treatment or with therapy that is inadequate to alter the course of the malignancy.[3]

The first report of complete regression of metastatic malignant melanoma in the English literature appears to have been by Bennett in 1899.[4] Bodurtha reviewed 29 cases in 1979. Regression of cutaneous or lymph node metastases[5] was more frequent than regression of visceral metastases.[6] The patient presented here had a lengito malignant melanoma of the face that metastasized to the regional lymph nodes and the lungs. The metastatic lesions resolved spontaneously after removal of the cutaneous lesion.

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CASE REPORT

A 77-year-old woman was first seen in June 1978 with a 25-year history of a slowly enlarging, black lesion of the face. The lesion extended from the palpebral conjunctiva of the right lower eyelid superiorly to the mandibular margin inferiorly, and from the right nasolabial fold medially to the preauricular area laterally. Two 1-cm, lightly pigmented nodules were present in the infraorbital area and cheek (Fig. 1). There were no lymphadenopathies or significant findings, and the chest x-rays did not show any abnormalities. The nodules, removed as biopsies, showed a spindle cell malignant melanoma, Clark level IV, 2.8 mm maximum thickness. Mohs microscopically controlled surgery, fresh tissue technique was undertaken in June 1978 to ablate the lesion, with the exception of the part involving the eyelid margin and palpebral conjunctiva which was deferred to a later date in order to avoid exposure and injury to the globe. A split-thickness autograft was used to cover the wound.

In April 1979, 10 months after the initial excision, three new pigmented plaques had developed adjacent to the superior, anterior, and inferior margins of the graft. They were 0.5, 0.7, and 1.0 cm in size. Biopsies showed malignant melanoma, Clark level II, 0.2 mm thick. It was noted that there was a 1-cm, subcutaneous mass in the parotid gland and several smaller masses, presumably lymph nodes, could be palpated in the submandibular region. The parotid mass was excised and proved to be a lymph node with metastatic melanoma (Fig. 2). Radiographs of the chest showed nodules in both lungs which were considered compatible with a metastatic tumor (Fig. 3). The patient consented to have

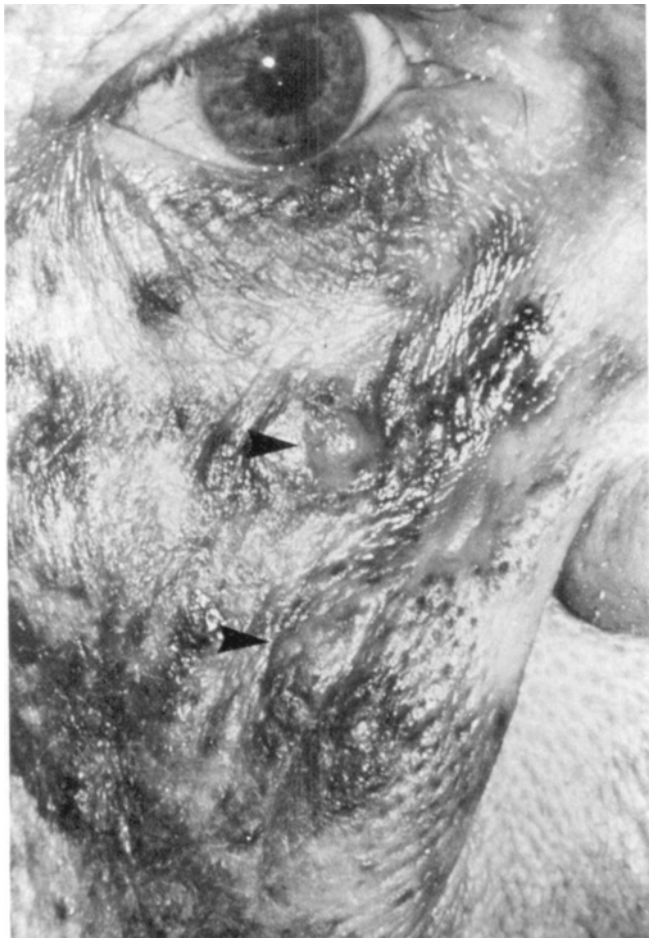

FIGURE 1. Extensive lentigo maligna of right side of face and lower eyelid with two nodules of malignant melanoma (arrowheads).

the cutaneous and conjunctival lesions excised, but declined further studies or therapy. She was then kept under periodic observation.

When seen in March 1980, about 12 months after the last excision, the lymph nodes had become nonpalpable, and the lesions in the lungs had cleared (Fig. 4). The patient remained free of any signs or symptoms of melanoma until she expired from other causes in May 1985, about 6 years after the initial evaluation.

COMMENTS

Spontaneous partial to complete regression of primary cutaneous melanoma is not uncommon. It occurs in up to 15% of cases.[7,8] This may account for presence of metastases in the absence of an obvious primary lesion on the skin. Of the first 561 patients with melanoma observed in the M.D. Anderson

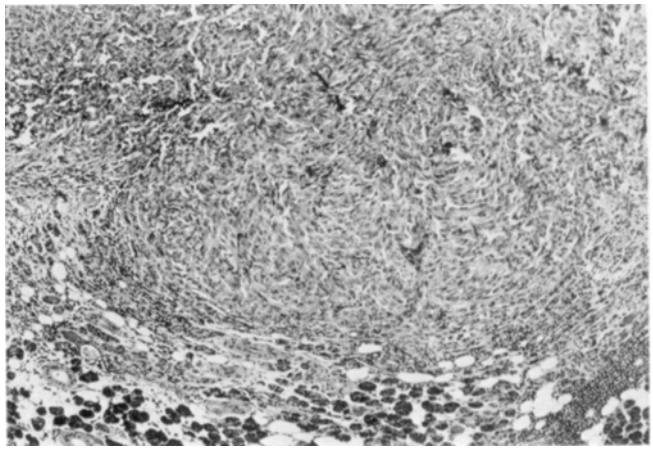

FIGURE 2. Metastatic malignant melanoma in parotid lymph node. Remnants of lymphoid tissue and part of parotid gland are in lower part (original magnification × 90).

Hospital, 40 (8.7%) had such lesions.[9] However, spontaneous regression of metastatic melanoma is rare; only 29 cases are on record.[5,6,10–38] Although the incidence of such a phenomenon is not known, studies of reported series indicate that it is in the order of 0.22–0.25%.[6,35] Bodurtha has analyzed 29 documented cases.[6]

Some pertinent data are summarized here. Regression of cutaneous or lymph node metastases (26 cases) was more frequent than regression of visceral metastases. Radiologically demonstrated pulmonary metastases regressed in five cases. The long-term survival (5 years or longer) of spontaneously regressing melanoma in this series was substantially superior to that in cases with recurrent disease. As has been pointed out, spontaneous regression is not synonymous with cure.[3] Six of 19 long-term survivors died with recurrent disease.[6]

The mechanisms of spontaneous regression of melanoma are as yet unclear. They have been related to immunologic, endocrine, pigment metabolic, intracellular, nutritional, and carcinogenic factors.[35] There is also evidence that spontaneous remission of primary cutaneous and metastatic malignant melanoma occurs mainly through an immune mechanism.[6,34–37] Rohdenburg collected 302 malignant tumors of various types in which temporary or permanent regression of a malignant growth occurred. The greatest number of spontaneous regressions followed incomplete surgical removal of the tumor or acute infections with prolonged pyrexia.[38]

In the case presented here, metastasis to a regional lymph node was proved histologically. Although there was no histologic evidence that the

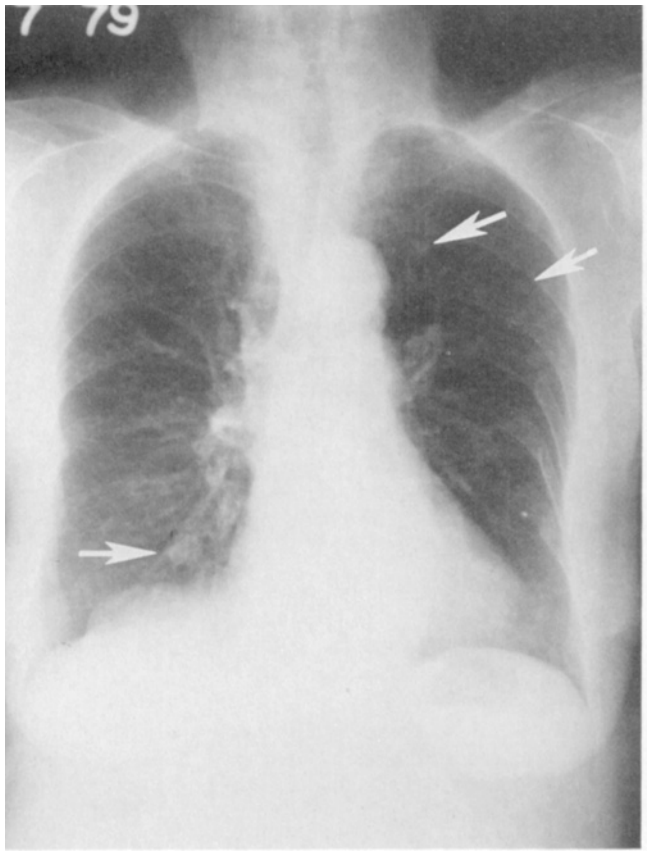

FIGURE 3. Radiogram of chest in May 1979. There are radiopaque nodules (arrows) in the base of right lung and in the upper lobe of left lung interpreted "compatible with metastases."

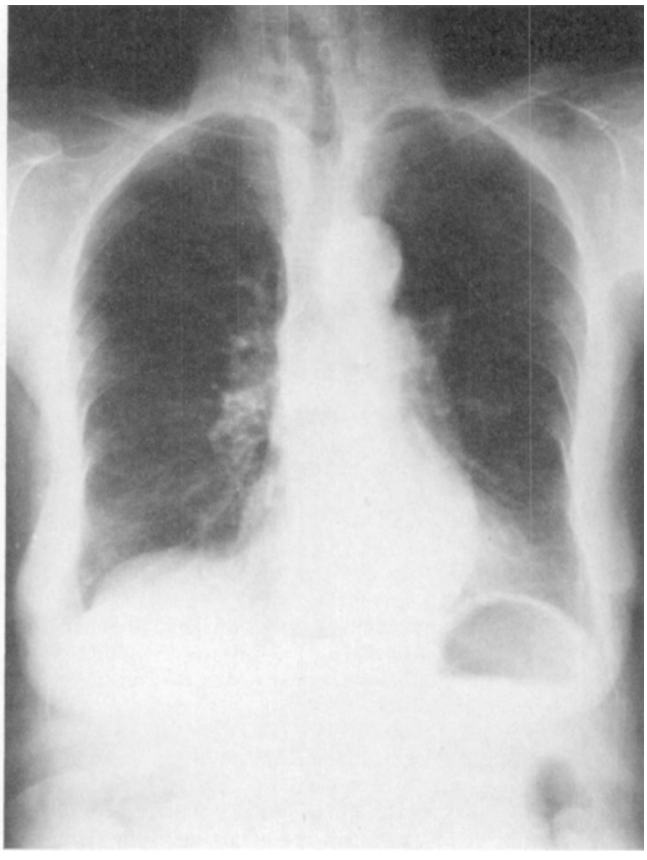

FIGURE 4. Radiogram of chest in March 1980. The opacities seen in Figure 3 have resolved.

nodules in the lungs were metastatic melanoma, the radiographic findings were compatible with this diagnosis, especially in view of the patient's history. This assumption has already been accepted in five cases.[5,6,18,25,27,29] It is also reasonable to assume that the metastases were in transit or were undetectable during the initial evaluation of the case. As the lymph node metastases and the pulmonary lesions regressed at 12 months after excision of the recurrent cutaneous melanoma and the parotid lymph node metastasis, it is possible that the favorable outcome might have resulted from stimulation of the immune mechanism by the surgery as has been suggested by Rohdenburg.[38]

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