CHAPTER **50**

AMELANOTIC MELANOMA OF THE PLANTAR FOOT

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A 79-year-old white female presented to the author's office for a second opinion of a chronic plantar ulceration of the left foot. The patient developed a spontaneous plantar ulceration of the left foot approximately 16 months ago. There was no prior history of infection or trauma.

The patient was in good medical health. She had recently found it difficult to walk due to a painful ulceration beneath the fourth metatarsal head. She had been under the care of a local podiatrist for approximately one year. Treatment consisted of weekly scalpel debridement, and the patient described occasional healing of the ulcer. However, the ulceration spontaneously reoccurred upon weight bearing.

Dermatologic consultation was obtained by the patient over the course of the 16 months, and the patient described having had a surgical biopsy. The biopsy report was negative.

Concurrent orthopedic examination and consultation was consistent with a plantar ulceration secondary to a subluxed metatarsal head. The patient was scheduled for an elevating metatarsal osteotomy to resolve the ulceration.

PHYSICAL EXAMINATION

Physical examination revealed a painful plantar ulceration of the left foot directly beneath the fourth metatarsal head. The ulceration measured approximately .75 cm in width, by 2.5 cm in length. The central portion of the ulceration was represented by cherry-red-like tissue which was smooth, and appeared more like a pyogenic granuloma. There was no central ulceration or depression. The lesion was somewhat puffy and protruding in appearance, and reflected light easily. The wound was clean, and there was no evidence of erythema or inflammation. Two small hyperpigmented areas of the plantar skin were located 1.0 cm proximal to the lesion. These areas appeared unrelated to the ulceration.

The ulcer was extremely painful to palpation. There were no associated forefoot or digital deformities. Palpation of the metatarsal heads revealed that they were on the same weight-bearing plane without any evidence of plantar protrusion. In particular, the fourth metatarsal was not prominent.

Vascular perfusion to the foot was adequate, with pedal pulses graded as +2/4. The foot was warm, with a normal temperature gradient. There was no evidence of arterial or venous disease. Neurologic examination was also within normal limits, with intact sharp/dull and vibratory senses to the forefoot. Muscle power was graded as 5/5 to all groups.

Due to the unusual presentation of this lesion, further surgical biopsy was discussed with the patient. The patient vehemently denounced any surgical biopsy. She continued to state that she previosuly had this performed. When the local anesthesia was drawn, the patient was surprised that she would need an injection, and stated that the previous biopsy was that of a superficial scrape biopsy. A deep punch biopsy was performed at this time (Fig. 1).

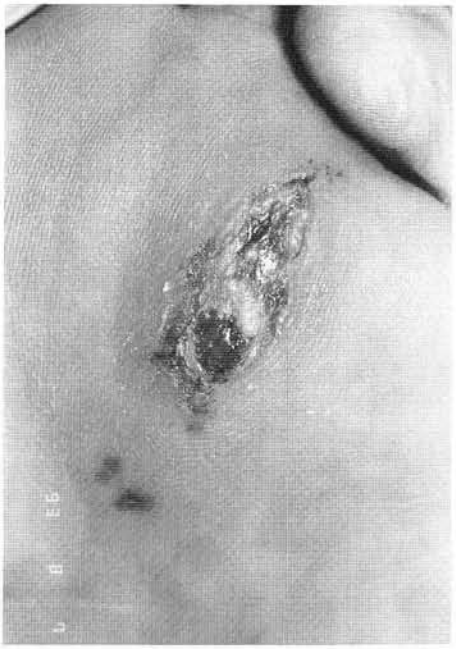

Figure 1. Clinical presentation of plantar ulceration.

Histologic diagnosis demonstrated atypical cells with pleomorphic nuclei and cytoplasm which ranged from scanty to abundant dusty-brown. At the edge of the neoplasm, there were distinct nests of cells which appeared to be melanocytes. The epidermis was represented only by parakeratotic cornified cells. These findings were consistent with malignant melanoma. Further confirmatory stains were performed consisting of S-100, HMB-45, and Vimentin positive. These three additional tests confirmed the diagnosis of malignant melanoma.

The patient was referred to a tumor oncologist at the New York University Medical Center. Wide excision of the melanoma was performed, along with resection of the metatarsal head. No metastases were found on work-up.