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Primary Dermal Melanoma Latent for More than 10 Years

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Dear Editor:

Primary dermal melanoma (PDM) has been described as a novel rare variant of melanoma that is confined to the dermis and/or subcutaneous tissue[1,2]. There have been no reports focusing on the duration of PDM so far. We report here a case of PDM for more than 10 years.

A 54-year-old Japanese woman was presented with an asymptomatic nodule on her sacral region. It had been present for more than 10 years. Two years later, she visited us again, complaining that the lesion had been growing and was painful for the past two months. A physical examination revealed a brown/red, elastic hard, dome-shaped nodule measuring 18×18 mm in diameter (Fig. 1A). A histopathological examination revealed a solitary, well-circumscribed, dermal and subcutaneous nodule that was encapsulated by fibrous tissue with extensive central necrosis and hemorrhage (Fig. 1B). Immunohistochemistry (IHC) showed that the tumor cells were positive for S100 protein, Melan-A and HMB-45 (Fig. 2A). In addition, IHC for p53, cyclin D1 and Ki-67 (Fig. 2B) were low positive (8.0%, 14.7% and 14.9% of cells were positive, respectively). Moreover, negative staining for D2-40 was observed. Positron emission tomography and computed tomography revealed no evidence of another primary melanoma or metastatic lesions. We diagnosed her with PDM. Wide local excision with a 2 cm margin was performed again. Then, the patient received a course of DAV-feron therapy (dacarbazine, nimustine hydro-

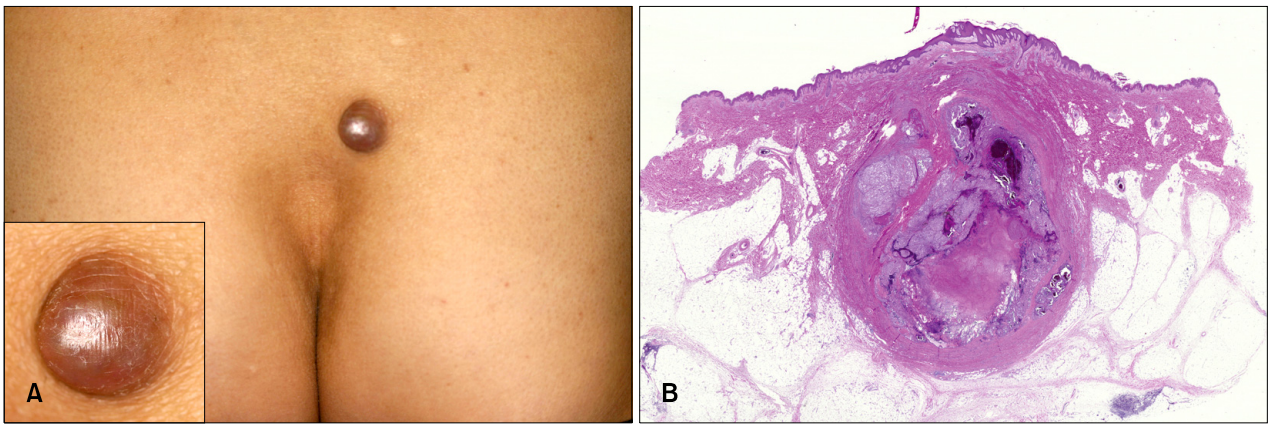

Fig. 1. (A) Brown/red nodule on the sacral region. (B) Primary dermal melanoma composed of a dermal and subcutaneous nodule surrounded by fibrous tissue, with extensive central necrosis and hemorrhaging (H&E, ×10).

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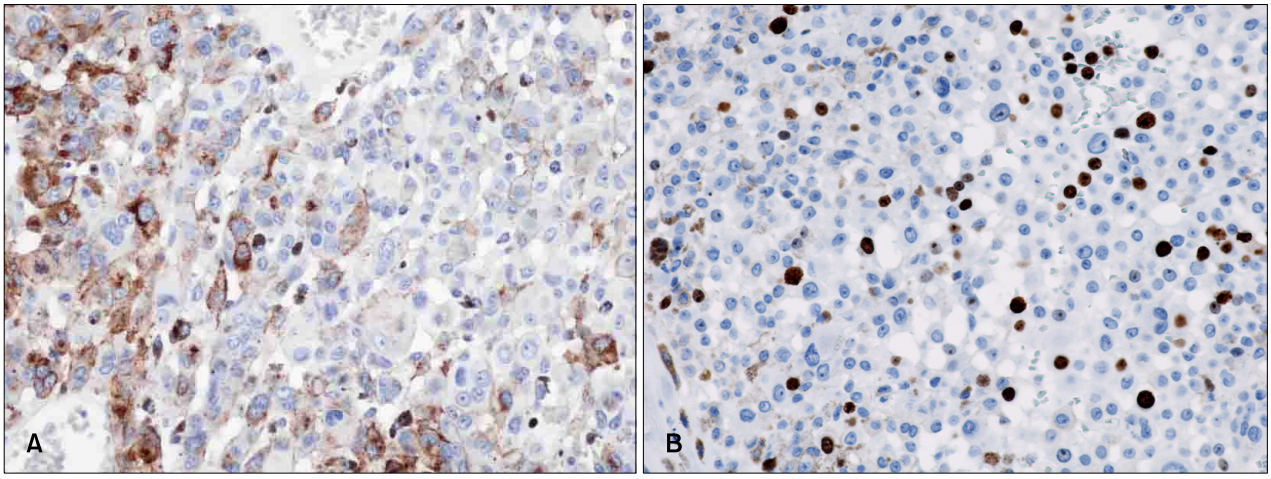

Fig. 2. Immunohistochemical findings of primary dermal melanoma. (A) HMB-45 staining was focally positive (×200). (B) Ki-67 staining was low positive (14.9% of cells were positive) (×200).

chloride, vincristin sulfate and interferon-β), followed by several local injections of interferon-β. After 3 years of follow-up, there has been no evidence of recurrence or metastasis.

Clinically, PDM may be misdiagnosed due to its features, which resemble a cyst or subcutaneous nodule. Histopathologically, it is difficult to differentiate PDM from solitary cutaneous metastatic melanoma. Recently, low levels of p53, Ki-67, cyclin D1 and D2-40 unique to PDM have been proposed[2]. Our findings were concordant with them. Central necrosis and hemorrhage were seen in our case. Of course these features may be the reflection of traumatized melanocytic nevus; moreover, these features are also frequently observed in PDM[2]. Furthermore, characteristic changes indicative of traumatized melanocytic nevus, such as ulceration, parakeratosis and less than 5% of Ki-67 labeling, were not recognized in our case.

According to the 2009 American Joint Committee on Cancer (AJCC) melanoma staging guidelines, localized metastases to the skin or subcutaneous tissues with an unknown primary site are defined as stage III, although they are classified as stage IV (M1a) according to the 2002 AJCC melanoma staging database[3]. The five-year survival rate of stage IIIB (T1-4aN2cM0) melanoma is 59%[3]. In contrast, the Kaplan-Meier 8-year survival rate of PDM was 83% in one series1 and 92% at a mean follow-up duration of 44 months in another[2]. Thus, patients with PDM achieve markedly better survival compared to metastatic melanoma patients.

Although we cannot deny the possibility of recent malignant changes from the preexisting melanocytic dermal nevus, it is worth noting that our case has more than 10 years of history. The disease duration of PDM was not mentioned in the previous 2 case series[1,2]. One Japanese case showed a 3-year history[4]. Long disease duration may be indicative of less aggressive behavior.

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REFERENCES

1. Bowen GM, Chang AE, Lowe L, Hamilton T, Patel R, Johnson TM. Solitary melanoma confined to the dermal and/or subcutaneous tissue: evidence for revisiting the staging classification. Arch Dermatol 2000;136:1397-1399.
2. Cassarino DS, Cabral ES, Kartha RV, Swetter SM. Primary dermal melanoma: distinct immunohistochemical findings and clinical outcome compared with nodular and metastatic melanoma. Arch Dermatol 2008;144:49-56.
3. Balch CM, Gershenwald JE, Soong SJ, Thompson JF, Atkins MB, Byrd DR, et al. Final version of 2009 AJCC melanoma staging and classification. J Clin Oncol 2009;27:6199-6206.
4. Hida Y, Kubo Y, Miyajima O, Arase S. Primary dermal melanoma: a case report and molecular characterization. J Dermatol 2009;36:346-352.