Four Cases of Dysplastic Nevus Syndrome

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Dear Editor:

Dysplastic nevus syndrome (DNS), also known as atypical mole syndrome, has been a source of considerable controversy because of the confusion about its nomenclature and definition. DNS is known to be rare in Asia, and to our knowledge, it has hardly been reported in Korea^{1,2}. However, in previous reports on dysplastic nevi (DN) in Korean individuals, 1 case from Roh et al.¹ and 9 of 15 cases from Shin et al.² satisfied the definition of DNS from our viewpoint. Herein, we report 4 additional cases of DNS in Korean patients, including 2 cases of melanoma that developed, and were reviewed in the above Korean reports.

Three male patients and a female patient presented with multiple asymmetric, ill-defined and variegated colored nevi (Fig. 1A~C, F). Their age ranged from 22 to 42 years old and the number of lesions was 5 to 21. Among the patients, patient 2 had a history of malignant melanoma that developed from a congenital melanocytic nevus, and patient 3 had a nodular melanoma that developed from DN (Fig. 1D, E). The father of patient 4 was diagnosed with nevoid melanoma with fatal metastasis. Histopathological examinations were performed on the lesions clinically suspected to be DN in each patient. All biopsy samples showed lentiginous melanocytic proliferation along the elongated epidermal rete ridges at the dermo-epidermal junction (DEJ) (Fig. 2A). On magnifying view, mild to moderate cytological atypia of random pattern and dusty

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Fig. 1. (A) Patient 1: multiple clinical dysplastic nevi (DN) on the back. (B) Patient 2: several clinical DN on the left arm. (C) Patient 3: clinical DN on the scalp; (D) a solitary enlarging black plaque on the right leg that was particularly diagnosed as a nodular melanoma; (E) magnifying view of the melanoma in the same patient. (F) Patient 4: 2 clinical DN on the back. Red arrows represent each of clinical DN.

Fig. 2. Representative histopathologic features of patient 4. (A) Lentiginous melanocytic proliferation along the elongated epidermal rete ridges and rete fusion at the lower tip, with concentric and lamellar fibrosis in the papillary dermis (H&E, $\times 100$). (B) Random mild to moderate cytological atypia in the basal layer (H&E, $\times 400$). (C) HMB-45-positive melanocytes at the dermo-epidermal junction and the uppermost layer of the dermis ($\times 200$). (D) A mean value of 7% Ki-67-positive cells ($\times 200$). (E) Scanning view of a section from patient 3: melanoma (thick arrow) and dysplastic nevi (DN; thin arrow) (H&E, $\times 40$). Magnifying view of the malignant melanoma (F) and DN (G) in patient 3 (H&E, $\times 100$).

melanin granules were found at the DEJ in the dermis. Fibroplasia of the concentric and lamellar type was also observed around the elongated rete ridges and the upper dermis (Fig. 2B). Immunohistochemical staining revealed HMB-45-positive melanocytes (Fig. 2C) and a mean value

of 7% Ki-67-positive cells (Fig. 2D). A final histopathological diagnosis of compound dysplastic nevus was made for patients 1, 3, and 4, and junctional DN for patient 2. However, melanoma that developed from DN was also present in patient 3 (Fig. 2E~G). Considering both the

clinical and histopathological features, we diagnosed all these cases as DNS. Furthermore, we performed excision only in cases of considerable DN that either presented unusual clinicopathological features or where the patient strongly wanted the DN to be removed. For the others, close observation was recommended.

Concerning the various definitions, there is considerable debate about the number of DN. Most previous reports agreed that large numbers of DN should be included in the diagnostic criteria. However, Elder et al.³ described DNS as a wide spectrum of clinical phenotype from a single DN in a patient without a personal and family history of melanoma to familial atypical multiple mole-melanoma syndrome. As we have followed Elder's definitions, we classified even 5 DN as DNS.

In analyzing previous cases^{1,2}, all 10 cases could not be analyzed according to asymmetry, border, and color because of a lack of description. However, their size was 3~45 mm, except in 1 case. Although the DN in 1 patient had a minimum size of 3 mm, as the number of DN was as many as 406, we considered this patient as having

DNS.

Considering that there are no definite clinicopathological diagnostic criteria of DNS in the West, DNS in Korean patients may be underdiagnosed, as previous Korean reports suggest. In addition, a difference in the number of moles between Asian and Western patients with DNS may encourage changing the diagnostic threshold of DN, and more importantly, DNS.

REFERENCES

1. Roh JY, Lee SY, Kye YC, Cinn YW, Kim SN. A case of dysplastic melanocytic nevus. *Korean J Dermatol* 1988;26: 447-452.
2. Shin SB, Lee DW, Lee JY, Cho BK. Clinical and pathologic findings of dysplastic nevus: review of 15 cases. *Korean J Dermatol* 2000;38:1055-1062.
3. Elder DE, Green MH, Guerry D 4th, Kraemer KH, Clark WH Jr. The dysplastic nevus syndrome: our definition. *Am J Dermatopathol* 1982;4:455-460.

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A Case of Mucinous Nevus Clinically Mimicking Nevus Lipomatosus Superficialis

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Dear Editor:

Mucinous nevus is a very rare entity and can be classified as both a cutaneous mucinosis and a connective tissue nevus¹. The term "mucinous nevus" was proposed because of its nevoid appearance and the characteristic pattern of mucin deposits in the papillary dermis¹. We report the

case of a mucinous nevus diagnosed in a young Korean man.

A previously healthy 24-year-old man visited our clinic because of confluent flesh-colored to brownish non-firm nodules on his left lower back, with a zosteriform distribution (Fig. 1). The skin lesions had been present since

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