

## Comparative Study of Syphilid and Syphilid-Like Eruptions on the Palms

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Dear Editor:

Dermatologists instinctively consider syphilid when viewing discrete macular or papular lesions on the palms, which may be an important clue in distinguishing syphilid from other disorders. The lack of clinical analysis on syphilid eruptions on the palm prompted us to investigate specific clues in differentiating syphilid from other disorders. We analyzed the characteristics of patients with syphilid (n=34) or syphilid-like eruptions (n=39) on the palms through a retrospective comparison, by using clinical photos and medical records from Pusan National University Hospital (PNUH) between January 2002 and July 2011. The study was approved by the ethics committee of PNUH, and voluntary informed consent was obtained in written form from all of the participants.

The syphilid-like group consisted of patients with discrete macular or papular lesions on the palms, mimicking typical syphilid but with negative treponemal and non-treponemal test. The definition for the syphilid-like group was based on the description in Fitzpatrick's textbook: "Palmoplantar lesions may be macular or papular, discrete or diffuse, and non-scaling, slightly scaly, or hyperkeratotic."<sup>1</sup> The syphilid-like group (n=39) included 10 (25.6%) patients with eczematous dermatitis, 8 (20.5%) with erythema multiforme, 6 (15.4%) with psoriasis, 3 (7.7%) with pityriasis rubra pilaris, 2 (5.1%) with drug eruption, and 10 (25.6%) with other skin conditions (Table 1).

Concerning palmar lesions, the differences between the two groups were analyzed in terms of symptoms, color, bilaterality, and scale types. For comparative analysis, cross-tabulation and independent t-test were used with PASW ver. 18.0 for Windows (IBM Co., Armonk, NY, USA). A  $p$ -value of  $\leq 0.05$  was set as the level of statistical significance.

The patients in the syphilid-like group (30 of 39, 76.9%) were more symptomatic than those in the syphilid group (16 of 34, 47.1%) ( $p=0.008$ ). Concerning the color of lesions, more dusky red lesions were found in the syphilid group than in the syphilid-like group (35.3% vs. 10.3%,  $p < 0.05$ ). Biette's collarette was present in 76.4% (26 of 34) of patients in the syphilid group and 23.1% (9 of 39) of patients in the syphilid-like group, with a statistically significant difference. In the syphilid-like group, scaling was not observed in 17 patients (43.6%) and Biette's collarette had the highest percentage (23.1%, 9 of 39) among the scale types. In terms of bilaterality, there was no significant difference between the syphilid group (94.1%, 32 of 34) and the syphilid-like group (87.2%, 34 of 39). The typical lesion of each group is shown in Fig. 1.

The results of this study confirmed that palmar syphilid could have various colors and scale types. To summarize the most common and statistically significant characteristics in the syphilid group, asymptomatic dusky red macules or papules having Biette's collarette on both palms can be considered as the typical presentation. However,

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**Table 1.** Clinical comparison of patients in the syphilid group and those in the syphilid-like group

Characteristic		Syphilid group	Syphilid-like group	p-value
Patient, n		34	39	
Sex (male : female), n (ratio)		20 : 14 (1 : 0.7)	14 : 25 (1 : 1.79)	
Age (yr), mean±SD		37.7±14.51	38.6±17.62	
Duration of symptom before diagnosis (mo), mean±SD		1.34±1.37	17.55±31.20	
Confirmed diagnosis, n (%)		Secondary syphilis 34 (100.0)	Eczematous dermatitis 10 (25.6) Erythema multiforme 8 (20.5) Psoriasis vulgaris 6 (15.4) Pityriasis rubra pilaris 3 (7.7) Drug eruption 2 (5.1) Pityriasis lichenoides 1 (2.6) Lichen planus 1 (2.6) Erythema annulare centrifigum 1 (2.6) Granuloma annulare 1 (2.6) Palmoplantar pustulosis 1 (2.6) Staphylococcal ecthyma 1 (2.6) Palmoplantar keratoderma 1 (2.6) Id reaction 1 (2.6) Tinea manus 1 (2.6) Viral eruption 1 (2.6)	
Clinical symptoms and signs, n (%)	Pruritus	14 (41.2)	24 (61.5)	0.082
	Tingling	1 (2.9)	0 (0.0)	0.466
	Pain	1 (2.9)	6 (15.4)	0.113
	No symptom	18 (53.0)	9 (23.1)	0.008
Color of palmar skin lesion, n (%)	Salmon pink	4 (7.7)	10 (25.6)	0.133
	Pink	9 (26.5)	12 (30.8)	0.686
	Red	9 (26.5)	13 (33.3)	0.524
	Dusky red	12 (35.3)	4 (10.3)	0.010
Type of scale of palmar skin lesion, n (%)	Biette's collarette	26 (76.4)	9 (23.1)	<0.001
	Psoriasiform	1 (2.9)	4 (10.3)	0.363
	Crack-like	0 (0.0)	6 (17.6)	0.027
	Gritty	1 (2.9)	0 (0.0)	0.466
	Pityriasiform	0 (0.0)	3 (8.8)	0.243
	No scale	6 (17.6)	17 (43.6)	0.017
Involved palm of skin lesion, n (%)	Both	32 (94.1)	34 (87.2)	0.438
	Right only	1 (2.9)	2 (5.1)	1.000
	Left only	1 (2.9)	3 (7.7)	0.618

SD: standard deviation.

**Fig. 1.** (A) Syphilid group: dusky-red lesions with Biette's collarette were seen. (B) Syphilid-like group: salmon-pink lesions with crack-like scales were seen, and the final diagnosis was hand eczema.

about half of the patients in the syphilid group were symptomatic and only 35.3% of them showed dusky red lesions. In addition, the dusky red color was observed in about 10% and atypical scales in one-fourth of the syphilid-like group. This study is noteworthy because it provides the standard characterizations for typical and atypical lesions through a comparison with the syphilid-like group.

This study has some limitations. The number of patients was not sufficient to make an accurate statistical analysis, and the syphilid-like group consisted of patients with various diseases. However, this study is the first to compare and analyze syphilid and syphilid-like eruptions on the palms and will help deepen the clinical understanding

of these conditions.

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# Intramuscular Vascular Malformation of the Temporalis Muscle: A Case Report and Review of the Literature

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Dear Editor:

Intramuscular vascular malformations (IVMs) are rare tumors accounting for  $\leq 1\%$  of all hemangiomas; approximately 14% of cases are localized in the musculature of the head and neck<sup>1</sup>. This entity was previously described as cavernous hemangiomas; however, according to histological features, it is desirable to classify them into vascular malformations. The masseter muscle is the most frequently affected muscle<sup>1</sup>. IVMs of the temporalis muscle are extremely rare, with only 24 cases having been re-

ported in the literature (Table 1)<sup>1</sup>. The actual incidence may be higher than reported, only a few cases are reported because IVM is not considered a differential diagnosis in the field of dermatology.

A 46-year-old woman presented to our department, with a history of a mass in the left temporal fossa that had been gradually increasing in size during the last 10 years. Physical examination revealed a soft, fluctuating, and non-tender soft-tissue mass measuring 2×2 cm in the left temporal fossa (Fig. 1A). Computed tomography (CT) re-

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