Table I. Side effects of isotretinoin treatment

Side effect	Present, n	Absent, n	Not recorded, n	Percentage affected*
Cheilitis and xerosis	366	10	17	97.3
Nosebleeds	12	195	186	5.8
Low mood	2	208	183	1.0
Gastrointestinal disturbance	3	207	183	1.4
Muscle aches and bone pain	15	205	173	6.8
Headache	4	208	180	1.9
Vision changes	1	207	183	0.5
Elevations in liver enzymes	3	385	5	0.8
Lipid panel results outside of reference ranges	2	384	7	0.5

*Percentage affected among patients for whom data was recorded.

From the Baylor College of Medicine, Houston, Texas[a]; and Memorial Sloan Kettering, New York, New York.[b]

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Correspondence to: Soo Jung Kim, MD, PhD, 1977 Butler Blvd, 6th Floor, Ste E6.200, Houston, TX 77030

E-mail: soojung.kim@bcm.edu

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Clinical features of dermatofibrosarcoma protuberans and risk factors for local recurrence after Mohs micrographic surgery

To the Editor: To date, few studies have focused on the differences in the clinical features of primary and recurrent dermatofibrosarcoma protuberans (DFSP). Some studies have reported the risk factors for local recurrence after wide local excision.[1] However, few studies have assessed the risk factors for local recurrence after Mohs micrographic surgery (MMS). To better understand the clinical features of DFSP, a retrospective cohort study, which included 197 patients, was conducted to evaluate the clinical features of primary and recurrent DFSP and the risk factors for local recurrence after MMS.

The main characteristics of our cohort are shown in Table I. Tumors appeared in men slightly more often than in women. The median age at the time of presentation was 30.8 years (range, 0.08-66 years). The median age at the time of first diagnosis was 38.0 years (range, 0.3 to 76.5 years). DFSP most commonly occurred on the chest (26.4%). In 8 patients, the lesions recurred after MMS: 1 recurrence occurred in the recurrent DFSP, and 7 recurrences occurred in the primary DFSP. No differences in sex, age at presentation, tumor size, location, or recurrence rates were noted between the primary and recurrent cases of DFSP after MMS. The mean ages at the time of first diagnosis and the interval between presentation and diagnosis in primary DFSP were significantly lower than those of recurrent DFSP ($P = .041$ and $P = .002$, respectively).

Compared with primary DFSP, fibrosarcomatous (FS) change was significantly more likely to occur in recurrent DFSP ($P = .042$). Tumor size (>5 cm) and FS change were associated with recurrence in the univariate analysis. In the multivariate analysis, FS change was the only independent predictor of recurrence (95% confidence interval, 1.990-74.794; $P = .007$) (Table II).

In contrast to previous studies suggesting an equal sex ratio,[2] our study showed that DFSP in Chinese patients was slightly more common among male than female patients. FS-DFSP is highly aggressive, with a high risk of local recurrence.[1,3] In this study, we found that FS change was an independent prognostic factor for local recurrence in both univariate and multivariate analyses. Interestingly, our data showed that FS-DFSP occurred in a large proportion of patients with recurrent DFSP relative to patients with primary DFSP. A multicenter study conducted by Huis in 't Veld et al[1] showed that patients who had tumors

Table I. Clinical features of patients with DFSP

Variables	Recurrent DFSP n = 71	Primary DFSP n = 126	Total n = 197	*P* value
Age at presentation, y				
Mean ± SD	31.7 ± 15.3	31.3 ± 13.4	31.5 ± 14.1	.871
Median (range)	31.3 (3.0-65.0)	30.1 (0.08-66.0)	30.8 (0.08-66.0)	
Age at diagnosis, y				
Mean ± SD	40.6 ± 13.8	36.3 ± 14.0	38.1 ± 13.8	.041
Median (range)	41.0 (4.8-76.5)	35.9 (0.3-68.5)	38.0 (0.3-76.5)	
The interval of diagnosis, y				
Mean ± SD	8.8 ± 6.6	5.4 ± 7.4	6.9 ± 7.3	.002
Median (range)	7.5 (0.5-30.3)	2.6 (0-44.0)	4.0 (0-44.0)	
Sex, n, male/female	37/34	75/51	112/85	.313
Size, cm				
Mean ± SD	2.8 ± 1.9	2.8 ± 2.2	2.9 ± 2.1	.794
Median (range)	2.0 (0.5-10.0)	3.0 (0.5-20.0)	3.0 (0.5-20.0)	
Location, n (%)				.586
Head, face, neck	9 (12.7)	11 (8.7)	20 (10.2)	
Shoulder	4 (5.6)	7 (5.6)	11 (5.5)	
Chest	20 (28.2)	32 (25.4)	52 (26.4)	
Abdomen	11 (15.5)	34 (27.0)	45 (22.8)	
Posterior thighs	18 (25.4)	29 (23.0)	47 (23.9)	
Upper extremity	5 (7.0)	6 (4.8)	11 (5.6)	
Lower extremity	4 (5.6)	7 (5.6)	11 (5.6)	
Growth, n (%)				
Indolence	19 (26.8)	55 (43.7)	74 (37.6)	.019
Gradually increasing	26 (36.6)	13 (10.3)	39 (19.8)	<.001
Rapid enlargement	26 (36.6)	58 (46.0)	84 (42.6)	.200
Time to rapid enlargement,* y				
Mean ± SD	3.8 ± 4.4	5.2 ± 7.1	4.8 ± 6.4	.369
Median (range)	2.0 (0.3-19.0)	3.0 (0.3-41.0)	3.0 (0.3-41.0)	
Cause, n (%)				
Trauma	3 (4.2)	10 (7.9)	13 (6.6)	
Unknown	68 (95.8)	116 (92.1)	184 (93.4)	
Pain	5	13	18	.444
Histology, n (%)				.042
Conventional	57 (80.3)	114 (90.5)	171 (86.8)	
Fibrosarcomatous	14 (19.7)	12 (9.5)	26 (13.2)	
Recurrence, n (%)	1 (1.4)	7 (5.6)	8 (4.1)	.263
Follow-up				
Mean ± SD	4.6 ± 1.8	4.2 ± 2.2	4.3 ± 2.0	.168
Median (range)	5.0 (1.5-8.0)	4.0 (1.3-16.0)	4.0 (1.3-16.0)	

DFSP, Dermatofibrosarcoma protuberans; *SD*, standard deviation.
*Time to rapid enlargement is the time from discovery of the tumor to rapid enlargement of the tumor.

larger than 5 cm more often experienced recurrence than those with smaller tumors after wide local excision. Some studies indicated that tumor size did not correlate significantly with recurrence.[4,5] In this study, a tumor size larger than 5 cm was an independent prognostic factor for local recurrence after MMS in the univariate analysis, although a tumor size larger than 5 cm was not significant in the multivariate analysis. This finding may be explained by the more modern cohort of patients with clear resection margins. This study indicates that the characteristics of DFSP are nonspecific and variable. In addition to targeting patients with high-risk factors for local recurrence (eg, FS change), an intensive self-examination and proactive follow-up should be emphasized.

Yanan Li, MD,[a] Chuan Wang, MD,[a] Kaiying Yang, MD,[a] Suhua Peng, MD,[a] Qi Wang, MD,[a] Siyuan Chen, PhD, MD,[b] and Yi Ji, PhD, MD[a]

From Department of Pediatric Surgery[a] and Pediatric Intensive Care Unit, Department of Critical Care Medicine, West China Hospital of Sichuan University, Chengdu, China.[b]

Table II. Risk factors for the local recurrence of primary DFSP after Mohs micrographic surgery

Factors	Univariate analysis OR (95% CI)	*P* value	Multivariate analysis OR (95% CI)	*P* value
Age at diagnosis > 30 y	1.141 (0.263-7.604)	.680	1.199 (0.922-1.559)	.175
Years from presentation to diagnosis > 20 y	6.400 (1.049-39.064)	.073	1.063 (0.956-1.183)	.257
Size > 5 cm	6.115 (1.230-30.409)	.043	1.123 (0.893-1.413)	.320
Location				
Trunk	1		1	
Head, face, neck	5.444 (0.874-33.924)	.099	9.036 (0.966-84.558)	.544
Extremity	2.042 (0.211-19.798)	.564	0.452 (0.015-13.812)	.649
Male sex	1.750 (0.326-9.389)	.700	0.709 (0.102-4.930)	.728
Histology, FS-DFSP	9.167 (1.771-47.44)	.030	13.419 (1.883-95.613)	.010

CI, Confidence interval; *DFSP*, dermatofibrosarcoma protuberans; *FS-DFSP*, dermatofibrosarcoma protuberans with fibrosarcomatous change; *OR*, odds ratio.

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Correspondence to: Yi Ji, MD, PhD, Division of Oncology, Department of Pediatric Surgery, West China Hospital of Sichuan University, #37 Guo-Xue-Xiang, Chengdu, 610041, China

E-mail: jijiyuanyuan@163.com

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A survey-based study of diagnostic and treatment concordance in standardized cases of cellulitis and pseudocellulitis via teledermatology

To the Editor: Hospital admissions in which cellulitis was the primary admitting diagnosis cost $3.7 billion in 2013.[1] Cellulitis is misdiagnosed in 30% of cases, and dermatology consultation can reduce these errors.[2] Teledermatology may offer a novel solution to overcome access problems within hospitals.[3]

We presented deidentified clinical images, case histories, and physical examination findings to dermatologists and asked them to differentiate cellulitis from pseudocellulitis. Each case presentation was followed by questions on diagnosis, workup, management, and comfort with teledermatology. After institutional review board exemption, the Scientific Committee for the Society of Dermatology Hospitalists approved the study to be sent to members with interest in cellulitis. Concordance was measured by Fleiss's κ, and bivariate linear regression was performed to examine the association between comfort with managing the cases and independent variables.

Participants were, on average, 6 years postresidency (range: 2-11 years, standard deviation [SD]: 3) and were seeing 340 inpatient consults per year (range: 30-1000, SD: 299), of which an estimated 38 (range: 3-100, SD: 35) were specifically cellulitis/pseudocellulitis.

There was moderate agreement in differentiating cellulitis from pseudocellulitis and antibiotic use recommendations ($\kappa = 0.52 \pm 0.05$ and 0.42 ± 0.05, respectively), fair agreement in the decision to discharge the patient ($\kappa = 0.32 \pm 0.05$), and slight agreement in the need for additional workup and skin biopsy ($\kappa = 0.09 \pm 0.05$ and 0.12 ± 0.05, respectively). The κ values measure interrater reliability and range from -1 to +1; thus, a κ of 0.52