

A clinico-dermoscopic study of seborrheic keratosis from Eastern India

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Abstract

Background Seborrheic keratosis (SK) is a benign epidermal tumour of the skin composed of epidermal keratinocytes. It is common in elderly population and sun exposure is considered as a precipitating factor.

Aims and Objective To study the clinical and dermoscopic findings of seborrheic keratosis in Eastern India.

Materials and Methods A cross-sectional study of 100 patients presenting with SK was done and detailed demographic, clinical and dermoscopic findings were recorded.

Results SK was common in younger age group. DPN was the commonest clinical variety most commonly found on face and neck with ML and CL being most common dermoscopic findings.

Conclusion SKs especially DPN are on a rise in young population. Dermoscopy shows CL lesions to be most common.

Key words

Seborrheic keratosis, Dermoscopy.

Introduction

Seborrheic keratosis (SK) is a benign epidermal tumour of the skin composed of epidermal keratinocytes. It is perhaps the most common benign epidermal tumour, more common in the white population above 40 years.¹ But it can arise as early as in adolescence. The exact aetiology of SKs is not well known; however, exposure to sunlight is believed to play a role in the development of them. SKs are usually diagnosed clinically. Commonly they present as well-circumscribed, dull, flat, tan, or brown patches. Gradually they become more papular, taking on a waxy, verrucous or “stuck-on”

appearance.¹ Dermoscopic findings of SK are Milia Like cysts [ML], Comedo Like openings [CL], Fissures and Ridges [FR], Moth Eaten borders [ME], Hair Pin blood vessels [HP], Finger Print-like structures [FP], Network Like structures [NL], and Sharp Demarcation [SD].² Even though SK have been well characterized clinically and histopathologically in western literature, data regarding clinical and dermoscopic correlation of different types of SK are inadequate from Eastern part of India. Hence, we intended to study the pattern of clinical variants of SK and to establish whether there is any correlation between the clinical variants of SK and their dermoscopic appearance.

Aim

1. To study the different clinical variants of

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seborrheic keratosis in Eastern India.

2. To study the dermoscopic patterns of different types of seborrheic keratosis.

Materials and Methods

A cross sectional study of 100 patients presenting with seborrheic keratosis were studied. Clinically diagnosed cases above the age of 18 years and willing to participate in the study were enrolled. The detailed demographic and clinical details were studied. Full history and detailed examination were done. The following parameters were recorded: age, sex, age of onset, family history, duration, site of lesions, number of lesions, size of lesions and morphology. Dermoscopy was done in all cases in randomly chosen pigmented lesions which were clinically diagnosed as SK and the criteria for SK-CL openings, ML cysts, FR, FP structures, ME, HP blood vessels, NL structures, and SD were recorded. In clinically and dermoscopically challenging cases histopathology was done.

Results

Total 100 patients were included in the study after they met with the inclusion criteria. 73 females and 27 males, with SK were recruited in this study. Gender ratio F: M was 2.7:1. DPN was more commonly found in patients with outdoor exposure (69%). The mean age of onset of SK was 49.29±14.58. SK was most common in 41-60 age group [48%] followed by 34 cases in between 18-40 years and 18 cases in elderly

(>60) (Table 1).

Family history of SK was present in 20 cases of which 13 cases were of DPN.

Clinical variants of seborrheic keratoses

The most common clinical variant was dermatosis papulosa nigra (DPN78%) followed by CSK (58%) pedunculated SK (PSK) (22 cases), flat SK (23 cases, %), and stucco keratoses (6 cases, %). (Figure 1) DPN was more common in younger individuals (48%, p=0.014) whereas CSK was more common in middle aged population (38%, p=0.001). Both were statistically significant.

The size of the lesions ranged from 1 mm to 3 cm. Larger flat SK were seen on face and legs. Morphologically papular type lesions were commonest (82%) followed by the plaque type (41%), patch type (2%). SK with polypoidal mass was seen in 6 cases on face. Pedunculated lesions were common (22%) and were seen more in obese individuals. "Raindrop pattern" of SK on back was found in 1 patient.

According to colour of the SK black coloured lesions were the commonest (88%) followed by dark brown.

The dermoscopic findings are enlisted in the Table 2. In our study comedo like openings (CL) were the commonest dermoscopic finding (75%) followed by milia like cyst ML (51%) and SD (43%) (Figure 2).

Table 1 Clinico-demographic profile of study population

N=100	CSK (n=58)	DPN (n=78)	PSK (n=22)	Flat SK (n=23)	Stucco Keratoses (n=6)	Total (N=100)
Gender ratio [F:M]	43:15	56:22	23:5	13:10	2:4	2.7:1
Age at presentation	55.13±12.48	49.42±15.5	49.75±15.77	61.3±16.05	77.5	49.29±14.58
Occupation outdoor:indoor	36:32	58:20	1:1	14:9	5:1	69:31
Site						
Face and neck	46	65	24	19	3	
Trunk	34	37	17	13	1	
Limb	13	20	3	7	2	

Table 2 Dermoscopic findings of clinical variants of SK

	CSK N=58	DPN N=78	PSK N=22	Flat SK N=23	Stucco Keratoses N=6
CL	70%	82%	75%	20%	4%
FR	68%	73%	100%	0	0
ML	52%	45%	18	16	52%
SD	65%	15%	0	21	85%
NL	5%	0	0	0	80%
HP	0	0	0	0	0
ME	25%	0	0	0	30%
FP	0	0	0	23%	0



Figure 1 Clinical varieties of seborrheic keratoses

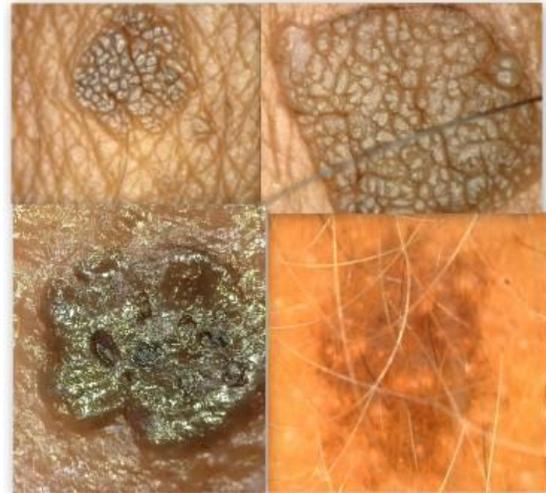


Figure 2 Dermoscopic patterns of seborrheic keratoses

Discussion

SKs are common pigmented skin lesions. They are significant because they mimic certain melanocytic malignancies, though common in white population.

In our study SK was most common in 41-60 age group (48%) followed by 34 cases in between 18-40 years and 18 cases in elderly (>60). This was different from studies done in other parts of India as well as outside^{3,4} where most common incidence was in age group above 60. This may be due to the fact that outdoor exposure is more common in the middle age group. Also cosmetic aspect is of more concern in this age group than in elderly for which medical help is sought.

DPN was the commonest SK in our group (78%). It was more common in younger age

group (48%, $p=0.014$) and this was statistically significant. In this age group obesity was present in 50% cases. DPN was also common on face and neck (65%). In obese individuals it was also common on limbs and trunk.

CSK cases were 58% and were more common on face and neck (45%). Black pigmentation was more common. CSK was more common in middle aged population (38%, $p=0.001$).

Pedunculated seborrheic keratoses (PSK)

These are brown to black, pedunculated papules, 1-5 mm size, most commonly seen on neck and axillae. In our study, 22 had PSK more common in middle age. This was similar to the findings by Rajesh *et al.*⁵

Flat seborrheic keratosis Flat SK are benign lesions that typically appear as oval tan-brown

patches or macules on sun-exposed areas of the skin, especially on the face, backs of the hands and wrists, extensor surfaces of the forearms, and chest. Flat SK are asymptomatic and increase with the age.⁶ In our study, 27 (10.4%) of the cases (14 males and 13 females, M: F ratio 1.07:1) had flat SK with almost equal sex distribution.

Stucco keratosis White or gray-white verrucous papules are a few millimeters in size, often in large numbers (100 or more) on sun-exposed areas (extensor surface of forearms and lower legs, dorsal aspects of hands and feet), more common in men, and are relatively easily scratched off.⁷ There were only five (2%) cases (two males and three females) of stucco keratoses in our study. These lesions were observed on forearms and legs as mentioned in the literature.

Dermoscopy aids in differentiating it from, pigmented basal cell carcinoma, hemangioma, blue nevus, atypical nevus, and cutaneous melanoma.⁸

In our study comedo like openings (CL) were the commonest dermoscopic finding (75%) followed by milia like cyst ML (51%) and SD (43%). This was similar to the findings by and Rajesh et al⁵ and Braun et al.⁹

In our study dermoscopic finding of CSK showed CL (70%), SD (65%) FR (58%) and MI (52%). In DPN CL (82%) and FR (73%) were commonest followed by ML (45%).

The most common dermoscopic feature in stucco keratoses were SD (85%), followed by NL structures (80%), ML cysts (52%) and ME (30%).

In pedunculated SK, FR was present in all cases followed by CL openings in 75% cases.

Conclusion

SKs especially DPN are on a rise in young population. Dermoscopy shows CL lesions to be most common.

References

1. Perkins W, Quinn AG. Non-melanoma skin cancer and other epidermal skin tumours. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. Rook's Textbook of Dermatology. 8th ed. Oxford: Blackwell Publishing; 2010. p. 52.1-48.
2. Malvey J, Puig S, Braun RP, Marghoob AA, Kopf AW, editors. Handbook of dermoscopy. 1st ed. London: Taylor and Francis; 2006. p.10-20.
3. Yeatman JM, Kilkenny M, Marks R. The prevalence of seborrheic keratoses in an Australian population: Does exposure to sunlight play a part in their frequency? Br J Dermatol 1997; 131: 411-4.
4. Kwon OS, Hwang EJ, Bae JH, Park HE, Lee JC, Youn JI, et al. Seborrheic keratosis in the Korean males: Causative role of sunlight. Photodermatol Photoimmunol Photomed 2003; 19: 73-80.
5. Rajesh G, Thappa DM, Jaisankar TJ, Chandrashekar L. Spectrum of seborrheic keratoses in South Indians: A clinical and dermoscopic study. Indian J Dermatol Venereol Leprol 2011; 77: 483-8.
6. Engel A, Johnson ML, Haynes SG. Health effects of sunlight exposure in the United States. Results from the first National Health and Nutrition Examination Survey, 1971-1974. Arch Dermatol 1988; 124: 72-9.
7. Thomas VD, Swanson NA, Lee KK. Benign epithelial tumours, hamartomas and hyperplasias. In: Wolff K, Goldsmith LA, Katz SI, Gilchrist BA, Paller AS, Leffell D, editors. Fitzpatrick's Dermatology in General Medicine. 8th ed. New York: McGraw-Hill; 2012. p. 1319-36.
8. Senel E. Dermoscopy of non-melanocytic skin tumors. Indian J Dermatol Venereol Leprol 2011; 77: 16-21.
9. Braun RP, Rabinovitz HS, Krischer J, Kreusch J, Oliviero M, Naldi L, et al. Dermoscopy of pigmented seborrheic keratosis: A morphological study. Arch Dermatol 2002; 138: 1556-60.