THE PSYCHOLOGICAL IMPACT OF FACIAL SKIN PIGMENTED LESIONS ON CHINESE WOMEN: A PRELIMINARY STUDY

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INTRODUCTION

Clinical manifestations of facial skin aging among Asian women range from early pigmentary lesions to fine lines, wrinkles., etc. The early appearance of facial skin pigmentary lesions, i.e., solar lentigines, are prominent extrinsic facial skin aging signs among Chinese women. However, its psychological impact is barely reported in China. The present study aims to understand the psychological effect of facial skin pigmetary lesions, i.e. solar lentigines, on Chinese women, and to enhance awareness of its impact and importance of its prevention.

METHODS AND MATERIAL

1 Subjects: 219 healthy Chinese women (age: 51.8 ± 12) in Beijing with facial solar lentigens were recruited between October 2011 to February 2012. All subjects signed an informed consent form prior to the study.
Inclusion criteria (meet all following items):
1) Age between 30 to 65 with facial solar lentigines based on investigator's clinical evaluation, and Asia Skin Aging Atlas (published by L'Oreal).
2) Living in Beijing for at least five years.
3) Willing to comply with study protocol.
Exclusion criteria (meet one of the following items):
1) Having rosacea; seborrheic dermatitis; acne; riehl's melanosis; nevus pigmentosus; post-inflammatory pigmentation.
2) Having systemic diseases which may affect one's judgment, unable to understand or answer questions correctly.

2 QOL instrument: All subjects completed a modified Chinese version of Melasma Quality of Life scale (MELASQOL) which we have used in Melasma Quality of Life study. It contains 11 items with scale of 1 (not at all) to 7 (all the time), one additional open question why fair complexion is important for you? what fair complexion means to you?"

3 Statistic analysis: All the analysis was performed using statistics software of SAS 9.3.

RESULTS

1 TABLE 1: EFFECT OF AGE ON QOL
(HIGHER SCORE = WORSE QOL)

Items	Scores (Mean ± SD)			
	30-45Y n=65	46-55Y n=73	56-65Y n=81	Total n=219
Q 1. The affect of your facial skin appearance (pigmentation) on you	5.2 (1.4)	5.6 (1.2)	5.2 (1.5)	5.3 (1.4)
Q 2. Frustration due to facial skin pigmentation	4.3 (1.4)	4.9 (1.4)	4.3 (1.5)	4.5 (1.5)
Q 3. Feel embarrassed due to facial skin pigmentation	4.2 (1.4)	4.8 (1.4)	4.1 (1.5)	4.4 (1.5)
Q 4. Feel depressed due to facial skin pigmentation	4.2 (1.5)	4.9 (1.4)	4.0 (1.6)	4.3 (1.5)
Q 5. Affect your interactions with other people (e.g. family and friends etc.) due to facial skin pigmentation	3.6 (1.4)	4.6 (1.5)	3.5 (1.6)	3.8 (1.6)
Q 6. Affect on your desire to be with people due to facial skin pigmentation	3.5 (1.5)	4.5 (1.4)	3.3 (1.7)	3.7 (1.6)
Q 7. Affect your relationship due to facial skin pigmentation	3.0 (1.4)	3.4 (1.6)	2.0 (1.2)	2.7 (1.5)
Q 8. Lost attractiveness due to facial skin pigmentation	4.5 (1.5)	4.8 (1.4)	4.6 (1.5)	4.6 (1.5)
Q 9. Some times feel less important or effect my work due to facial skin pigmentation	3.8 (1.5)	4.2 (1.5)	3.3 (1.3)	3.7 (1.5)
Q 10. Affect your sense of freedom (e.g. activities and talking with people) due to facial skin pigmentation	3.7 (1.5)	3.9 (1.5)	3.2 (1.5)	3.6 (1.5)
Q 11. Do you think fair facial complexion, no pigmentation or less pigmentation is important to you?	6.3 (1.2)	6.3 (0.9)	6.1 (1.2)	6.2 (1.1)
Total score	**46.2 (12.4)**	**51.9 (11.6)**	**43.8 (11.3)**	**47.0 (12.7)**

1. Among three age groups, the age group of 46 - 55 revealed a higher total score and each individual score.

2. In response to the open question, most subjects stated:
"a fair facial complexion without or less pigmentation is important, it means beauty, young and healthy".
"a fair facial complexion means more attractive, and admirable".
"a fair facial complexion means confident, and elegant".
"if I have a fair facial complexion, I would be more social".

2 TABLE 2: EFFECT OF EDUCATION LEVEL ON THE QOL

QOL Item	Primary school n=34	Junior high n=71	Senior high N=68	Junior college n=10	College above n=35
Q 1	5.5	5.7	5.4	5.6	4.3
Q 2	4.4	4.8	4.8	3.7	3.6
Q 3	4.5	4.6	4.6	3.6	3.6
Q 4	4.3	4.6	4.6	4.2	3.6
Q 5	3.7	4.0	4.3	2.9	3.1
Q 6	3.9	3.9	4.1	2.7	2.9
Q 7	2.4	2.8	3.1	2.1	2.5
Q 8	4.7	4.8	5.0	3.8	3.6
Q 9	3.7	4.0	4.0	2.5	3.0
Q 10	3.5	3.8	4.0	3.0	2.6
Q 11	6.7	6.3	6.3	6.1	5.7
Total	**46.9**	**49.3**	**50.1**	**40.2**	**38.6**

College and above degree showed lower total score followed by Junior college compared with rest of the educational level groups.

3 TABLE 3. SUBJECTS RANKED IMPACTING SEQUENCE (1-7)

Characteristics of pigmentary lesions	30-45Y n=65	46-55Y n=73	56-65Y n=81	Total n=219
A single size	4.8	5.2	4.3	4.7
Total area of all pigmentary lesions	3.9	3.8	4.1	3.9
Location	3.7	3.4	3.6	**3.6**
Quantity	3.5	3.7	3.5	**3.6**
Darkness	3.0	2.8	3.0	**2.9**
Duration	5.0	4.9	5.0	4.9
Uneven skin tone	4.2	4.2	4.6	4.3

The color / darkness of pigmentary lesions was the most disturbing element followed by location, and total numbers of pigmentary lesions.
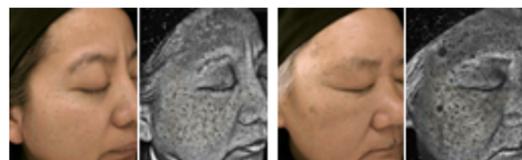
Numerous small lesions   Numerous small lesions with few large ones

CONCLUSION

Solar lentigines is an early sign of extrinsic skin aging that affects Chinese women's QOL irrespective of age, or education level. The modified Chinese version of MELASQOL can be used for assessing the psychological impact of facial skin pigmentary disorders, i.e., solar lentigines.

The authors declare no conflict of interest

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