

Japanese Cases of Microcystic Adnexal Carcinoma Predominantly Affect the Right Side of the Face

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ABSTRACT

Microcystic adnexal carcinoma is considered to have predisposition developing in ultraviolet exposed areas, especially the left-side face on which drivers get sunlight in the USA. The present study analyzed 141 cases in Japan where drivers get facial sun exposure on the right-side. Out of 102 facial lesions, 11 occurred on the midline, 54 on the right-side, 28 on the left-side and sides of 9 were unknown. The right-side predominance was remarkable on the perioral region, but not shown on the cheek. This result is insufficient to support the possibility that ultraviolet exposure induces microcystic adnexal carcinoma.

Key words: Microcystic adnexal carcinoma; Japanese patients; Ultraviolet exposure

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EDITORIAL

Microcystic adnexal carcinoma (MAC) was first described by Goldstein *et al* in 1982^[1]. Its histology reveals both follicular and sweat gland differentiation: keratin-filled cysts, ducts and gland-like structures in a fibrous stroma. It shows seldom cellular atypia or mitoses but does aggressive local invasion. MAC has been considered to develop more frequently in women, in Caucasians and in middle-aged to older persons, and affects predominantly the head and neck^[2,3].

Studying the patients of MAC in the USA where drivers get facial sun exposure on the left-side, Chiller *et al*^[3] reported its tendency to present as a left-sided facial lesion. They regarded ultraviolet (UV) exposure as one of the risk factors of MAC. Several reported cases occurring after radiotherapy^[4-7] support this possibility. Chiller *et al*^[3] were interested in comparing the left-sided predominance with series obtained in Australia or England, where drivers get facial sun exposure on the right-side. Japan is a left-hand traffic country as Australia and England. In 2002 Ohtsuka & Nagamatsu^[8] summarized 51 Japanese patients with MAC recorded in case reports or abstracts. Many cases have been reported in Japan after that. Analyzing them would be useful for interest of Chiller *et al*.

Searching Pub Med and Ichushi service (Japanese online medical service by NPO Japan Medical Abstracts Society), the author found only 12 Japanese cases reported in English literature from 1987 to 2017. However, the number including ones reported in Japanese literature was 149. The present study analyzed 141 cases which were confirmed to have developed on the skin. The age and gender of the patients are shown in Table 1. The median age is 62 (range 12-94). Sixty-six are men, 74 are women, and one is unknown sex. Table 2 shows the number of lesion sites. Total number of the head and neck lesions is 115 (82%). The facial predominance is obvious. Out of 102

facial lesions, 11 occur on the midline, 54 on the right side, 28 on the left side and sides of 9 are unknown.

Yu *et al*^[2] analyzed and summarized data from the National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) 1973 to 2004 database regarding MAC. This was a data in the USA. In 223 patients (96 men and 127 women), race distribution was 90% (201 patients) white, 3% (6 patients) black, 2% (5 patients) Asian/Pacific Islander, and 5% (11 patients) unknown/other. For cases diagnosed from 2000 to 2004, relative incidence rate for whites was 6.5 per 10,000,000 (Standard Error SE: 0.47), age adjusted to the 2000 US standard population. Blacks had an incidence rate of 1.9 per 10,000,000 (SE: 0.80), and Asian/Pacific Islanders had an incidence rate of 1.6 per 10,000,000 (SE: 0.70). SEER database detected that 166 cases (74%) occurred on the head and neck. The median age of all patients was 68 (range 12-102). In 48 patients (17 men and 31 women) reported by Chiller *et al*^[3], the median age was 65 (range 19-90). Forty-two lesions (88%) occurred on the head and neck. Out of them 24 lesions were on the left-side, 9 on the right-side and 9 on the midline. Thirty-five of these appeared on the face.

The present data were consistent with the results of the above two studies in the age, the sex and the site. There were not many female cases in all ages. The number of male cases was obviously large in the fifth decade (Table 1). Examining 105 cases (54 man and 51 women) reported in English literature, Friedman *et al*^[5] described that the sex distribution was approximately equal. The sex ratio may not be important. The most common site of involvement was the face which is a UV-exposed area (Table 2). As Chiller *et al* would expect, Japanese cases predominantly affected the right-side of the face on which drivers get sunlight.

The right-side predominance was remarkable on the perioral region (29 on the right, 8 on the left, including two cases accompanied by nasal lesions) in the present study. It is doubtful whether there is a large left / right difference in UV-exposure dose during driving in this narrow region. The lesions on the cheek did not reveal the right-side predominance (Table 2). The present data is insufficient to support the possibility that UV-exposure induces MAC, but cannot deny it.

REFERENCES

1. Goldstein DJ, Barr RJ, Santa Cruz DJ. Microcystic adnexal carcinoma: a distinct clinicopathologic entity. *Cancer* 1982; **50**: 566-572. [PMID: 7093897]
2. Yu JB, Blitzblau RC, Patel SC, Decker RH, Wilson LD. Surveillance, Epidemiology, and End Results (SEER) database analysis of Microcystic adnexal carcinoma (sclerosing sweat duct carcinoma) of the skin. *Am J Clin Oncol* 2010; **33**: 125-127. [PMID: 19675445]; [DOI: 10.1097/COC.0b013e31819791eb]
3. Chiller K, Passaro D, Scheuller M, Singer M, McCalmont T, Grekin RC. Microcystic adnexal carcinoma: forty-eight cases, their treatment, and their outcome. *Arch Dermatol* 2000; **136**: 1355-1359. [PMID: 11074698]
4. Antley CA, Carney M, Smoller BR. Microcystic adnexal carcinoma arising in the setting of previous radiation therapy. *J CutanPathol*. 1999; **26**: 48-50. [PMID: 10189245]

Table 1 Distribution of age and sex.

age	number of patients	number of male	number of female	number of unknown gender
90~	2	2		
80~89	15	4	11	
70~79	27	15	12	
60~69	33	14	19	
50~59	36	15	20	1
40~49	10	9	1	
30~39	10	4	6	
20~29	5	3	2	
10~19	1		1	
unknown	2		2	

Table 2 Site of lesions.

Site	Number of patients	On the right	On the left	On the midline	Unknown regions
Face	102	54	28	11	9
Forehead	21	11	5	4	1
Periorbital	3	1	2		
Nose	21	8	8	3	2
Perioral	41	27	8	2	4
Cheek	11	3	5	1	2
Perioral+Nose	2	2			
Forehead+Periorbital	1	1			
Forehead+Periorbital+ Nose	1	1			
Forehead+Nose+ Cheek	1			1	
Scalp	12	3	4	3	2
Neck	1	1			
Trunk	18	4	10	2	2
Knee	1	1			
Hand	4	1	3		
Foot	3	3			

5. Friedman PM, Friedman RH, Jiang SB, Nouri K, Amonette R, Robins P. Microcystic adnexal carcinoma: collaborative series review and update. *J Am Acad Dermatol* 1999; **41**: 225-231. [PMID: 10426893]
6. Abbate M, Zeitouni NC, Seyler M, Hicks W, Loree T, Cheney RT. Clinical course, risk factors, and treatment of Microcystic adnexal carcinoma: a short series report. *Dermatol Surg* 2003; **29**: 1035-1038. [PMID: 12974700]
7. Beer KT, Bühler SS, Mullis P, Laeng RH, Greiner R. A Microcystic adnexal carcinoma in the auditory canal 15 years after radiotherapy of a 12-year-old boy with nasopharynx carcinoma. *Strahlenther Onkol*. 2005; **181**: 405-410. [PMID: 15925985]
8. Ohtsuka H, Nagamatsu S. Microcystic adnexal carcinoma: review of 51 Japanese patients. *Dermatology*. 2002; **204**: 190-193. [PMID: 12037446]

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