

Dermatology Reports

Acral lentiginous melanoma with subsequent spontaneous vitiligo vulgaris: a case report and literature review

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SUPPLEMENTARY MATERIAL

Supplementary Table 1. Literature review.

Author, year of publication	Age (years)	Sex	Type of melanoma	Location of melanoma	Size of ALM	Breslow/ Clark	Location of vitiligo patches	Vitiligo onset in relation to melanoma	Immuno-therapy	Vitiligo onset in relation to immuno-therapy	History of autoimmune disease or malignancy	Follow-up	Outcome
Kim <i>et al.</i> , 2015 ¹⁴	85	M	ALM	Left third fingertip. Then metastases to brain, liver, bone, and both lungs	2.5x2x1	7.25 mm/at least IV	Face and trunk	2 years after	No	-	-	3 months	Died

Edmondson <i>et al.</i> , 2016 ¹⁵	64	F	ALM	Left foot, with nodal involvement, and then metastasis	-	6.1 mm/ -	Asymmetric involvement of face, arms, back, chest, and lower extremities	-	Nivolumab therapy was started in May 2015 at a dose of 3 mg/kg IV every two weeks.	9 weeks	No	-	-
Spring <i>et al.</i> , 2017 ¹⁶	56	F	ALM	Primary site in right heel, but it showed complete regression with absence of neoplastic cells. Then metastasis as right thigh mass, lymph nodes of, right common iliac, external iliac, and inguinal nodes	5x5	Unspecified	Medial aspect of right ankle	Unspecified	No	-	-	3 months	Alive
Dabbas <i>et al.</i> , 2019 ¹	58	M	ALM	Primary site on plantar aspect of left foot involving fourth and fifth toe. 1 year later, recurrence on the left lower limb with involvement of inguinal lymph nodes and presence of in-transit metastases	-	7 mm/ -	Face and upper extremities	-	Nivolumab 240 mg iv every 2 weeks	3 months after immunotherapy	-	-	-
Ranaivo <i>et al.</i> , 2019 ¹⁷	44	F	ALM	The melanoma originated on the right heel (primary site) and metastasized to the right inguinal lymph nodes, right iliac chain, and the liver	-	<4 mm/IV	Multiple achromic patches in face, chest, arms, thighs, right inguinal swelling, and backs of the feet	-	No	-	-	2 months	Died
Deoghare <i>et al.</i> , 2021 ¹⁸	65	F	ALM	Plantar aspect of left foot overlying the head of fifth metatarsal for 1 year. Now possible lung metastasis	3x3	5.5 mm/V	forehead, hands, and forearms	Unspecified	No	-	-	-	-
Fouzia <i>et al.</i> , 2022 ⁹	69	M	ALM	Primary site on Sole. Then metastasis to nodal, abdominal, and pelvic	-	2 mm/III	Started on the face and hands then diffuse bilateral asymmetrical	12 years after	Unspecified	-	Papillary urothelial Carcinoma (Low grade)	-	Died
	64	F	ALM	Sole	-	1.5 mm/IV	Peri-oral/bilateral symmetrical	10 years prior	-	-	-	2 years	Alive

	90	F	ALM	Sole, lung metastasis	-	18 mm/IV	Bilateral and symmetrical/back	4 months prior	-		Breast cancer	6 months	Alive
	71	M	ALM	Primary site on sole, then nodal and brain metastases	-	12 mm /IV	Bilateral symmetrical face/forearms	2 months after	-	-	No	-	-
	72	F	ALM	Primary site on sole, then lung, and liver metastases	-	8 mm /IV	Bilateral symmetrical/face	4 months prior	-	-	-	-	-
Zheng <i>et al.</i> , 2022 ¹⁹	63	F	ALM	Primary site on back of the right index finger 7 years ago. Then metastasis to right axillary region and small intestine	-	-	Face and neck	1 year prior	Only 1 cycle of cindilizumab 200 mg in her last month of life	Prior to immunotherapy	No	7 years and 5 months	Died

ALM, acral lentiginous melanoma; -, unavailable information.

References

1. Dabbas D, Neema S, Pathak N. Nivolumab induced vitiligo-like depigmentation in metastatic acral lentiginous melanoma. *Pigment Int* 2019;6:105-8.
2. Schadendorf D, van Akkooi AC, Berking C, et al. Melanoma. *Lancet* 2018;392:971-84.
3. Ahmed R, Sharif D, Jaf M, Amin DM. Effect of TNF- α - 308G/A (rs1800629) promoter polymorphism on the serum level of TNF- α among Iraqi patients with generalized vitiligo. *Clin Cosmet Investig Dermatol* 2020:825-35.
4. Phan A, Touzet S, Dalle S, et al. Acral lentiginous melanoma: a clinicoprognostic study of 126 cases. *Br J Dermatol* 2006;155:561-9.
5. Goydos JS, Shoen SL. Acral lentiginous melanoma. *Melanoma* 2016:321-9.
6. Ezzedine K, Lim HW, Suzuki TA, et al. Revised classification/nomenclature of vitiligo and related issues: the Vitiligo Global Issues Consensus Conference. *Pigment Cell Melanoma Res* 2012;25:E1-3.

7. Speeckaert R, van Geel N. Vitiligo: an update on pathophysiology and treatment options. *Am J Clin Dermatol* 2017;18:733-44.
8. Failla CM, Carbone ML, Fortes C, Pagnanelli G, D'Atri S. Melanoma and vitiligo: in good company. *Int J Mol Sci* 2019;20:5731.
9. Fouzia H, Amal K, Sarah B, et al. Melanoma Associated Leukoderma: Case Series and Literature Review. *Am J Clin Med Res* 2022;10:36-41.
10. Lommerts JE, Teulings HE, Ezzedine K, et al. Melanoma-associated leukoderma and vitiligo cannot be differentiated based on blinded assessment by experts in the field. *J Am Acad Dermatol* 2016;75:1198-204.
11. Arpaia N, Cassano N, Vena GA. Regressing cutaneous malignant melanoma and vitiligo-like depigmentation. *Int J Dermatol* 2006;45:952-6.
12. Markovic SN, Erickson LA, Rao RD, et al.; Melanoma Study Group of the Mayo Clinic Cancer Center. Malignant melanoma in the 21st century, part 1: epidemiology, risk factors, screening, prevention, and diagnosis. *Mayo Clin Proc* 2007;82:364-80.
13. Prasad S, Nassar M, Azzam AY, et al. CaReL Guidelines: A Consensus-Based Guideline on Case Reports and Literature Review (CaReL). *Barw Med J* 2024;2:13-19.
14. Kim YJ, Lee JB, Kim SJ, et al. Amelanotic acral melanoma associated with KIT mutation and vitiligo. *Ann Dermatol* 2015;27:201-5.
15. Edmondson LA, Smith LV, Mallik A. Nivolumab-induced vitiligo in a metastatic melanoma patient: A case report. *J Oncol Pharm Pract* 2017;23:629-34.
16. Spring IR, de Wet J, Jordaan HF, et al. Complete spontaneous regression of a metastatic acral melanoma with associated leukoderma. *JAAD Case Rep* 2017;3:524-8.
17. Ranaivo IM, Sendrasoa FA, Andrianarison M, et al. Vitiligo Associated with Melanoma in a Malagasy Woman. *Case Rep Dermatol Med* 2019;2019:7925785.
18. Deoghare S, Kumar A, Deora MS. An unusual case of acral lentiginous melanoma with leukoderma. *Pigment Int* 2021;8:52-4.
19. Zhao E. A Metastatic Melanoma Patient with Spontaneous Melanoma-Associated Vitiligo Survived for up to 7 Years and 5 Months: A Case Report. *Ann Clin Med Case Rep* 2022;8:1-5.
20. Quaglino P, Marengo F, Osella-Abate S, et al. Vitiligo is an independent favourable prognostic factor in stage III and IV metastatic melanoma patients: results from a single-institution hospitalbased observational cohort study. *Ann Oncol* 2010;21:409-14.

21. Abdullah HO, Abdalla BA, Kakamad FH, et al. Predatory Publishing Lists: A Review on the Ongoing Battle Against Fraudulent Actions. *Barw Med J* 2024;2:26-30.
22. Jung HJ, Kweon SS, Lee JB, et al. A clinicopathologic analysis of 177 acral melanomas in Koreans: relevance of spreading pattern and physical stress. *JAMA Dermatol* 2013;149:1281-8.
23. Minagawa A, Omodaka T, Okuyama R. Melanomas and mechanical stress points on the plantar surface of the foot. *New Engl J of Med* 2016;374:2404-6.
24. Buljan M, Šitum M, Lugović L, Vučić M. Metastatic melanoma and vitiligo: a case report. *Acta Dermatovener Cr* 2006;14:100-3.
25. Daneshpazhooh M, Shokoohi A, Dadban A, Raafat J. The course of melanoma-associated vitiligo: report of a case. *Melanoma Res* 2006;16:371-3.
26. Wang JR, Yu KJ, Juan WH, Yang CH. Metastatic malignant melanoma associated with vitiligo-like depigmentation. *Clin Exp Dermatol* 2009;34:209-11.
27. Nakamura Y, Fujisawa Y. Diagnosis and management of acral lentiginous melanoma. *Curr Treat Options Oncol* 2018;19:1-1.