




Meyerson's Phenomenon Induced by Molluscum Contagiosum in an Adult: A Rare Case Report

Daxing Wu ¹, Jianzhong Xu ¹, Lifeng Wu ²

¹Department of Dermatology, Tongxiang Dermatology Hospital, Tongxiang, People's Republic of China; ²Department of Dermatology, Tongxiang First People's Hospital, Tongxiang, People's Republic of China

Correspondence: Lifeng Wu, Department of Dermatology, Tongxiang First People's Hospital, No. 1918, Xiaochang East Road, Tongxiang City, Zhejiang Province, 314500, People's Republic of China, Tel +86 13867398381, Email wulifengmuzi@126.com

Abstract: The Meyerson's phenomenon is an uncommon reactive process that can be triggered by various cutaneous lesions, including melanocytic nevi, capillary malformations, seborrheic keratoses, dermatofibromas, sebaceous nevi, and scars, among others. Here, we report a rare case of Meyerson's phenomenon induced by molluscum contagiosum in an adult, along with its dermoscopic features and treatment response.

Keywords: Meyerson's phenomenon, molluscum contagiosum, dermoscopy, treatment

Introduction

Molluscum contagiosum is a common viral skin infection caused by the molluscum contagiosum poxvirus. It is characterized by umbilicated papules with a translucent, glossy appearance and primarily affects children between the ages of 2 and 5 years. Meyerson's phenomenon, also known as halo dermatitis or halo eczema, was first described by Meyerson in 1971.¹ It is characterized by erythematous and scaling patches, often associated with pruritus, that develop around a preexisting cutaneous lesion. The most common primary skin condition is melanocytic nevi, followed by capillary malformations, seborrheic keratoses, dermatofibromas, sebaceous nevi, scars, and even malignant lesions such as malignant melanoma.^{2,3} Meyerson's phenomenon associated with molluscum contagiosum, also known as molluscum dermatitis, occurs frequently in children, with an incidence of up to 38.8%,⁴ but has rarely been reported in adults.

Case Report

A 27-year-old female patient presented with a red patch on the anterior neck for 6 months, with mild itching. She had applied mometasone furoate cream for one week, with no improvement. Dermatological examination revealed an oval-shaped, slightly red patch on the left side of the anterior neck. The surface appeared dry with mild scaling, and the edges of the patch had a halo-like configuration, along with slight pigmentation and collar-like scaling. In the center of the patch, a pearl-like papule about 2 mm in diameter was present (Figure 1). Fungal microscopy of the skin lesion was negative.

Dermoscopy revealed irregularly distributed dotted vessels and white flaky scales on a dark red background, with a central amorphous white structure. Based on clinical and dermoscopic findings, the diagnosis of Meyerson's phenomenon induced by molluscum contagiosum was made. The molluscum contagiosum lesion was treated with curettage, and topical desonide cream was used for the dermatitis. Six months later, the patient returned for follow-up and reported that the red patch had resolved after two weeks of topical treatment; however, a new molluscum contagiosum lesion had reappeared in the midline area of the neck, without recurrence of Meyerson's phenomenon (Figure 2). The new lesion was treated with curettage again.



Figure 1 (A) An oval-shaped, slightly red patch with scaling on the left side of the anterior neck. (B) Irregularly distributed dotted vessels and white flaky scales on a dark red background, with a central amorphous white structure under dermoscopy (at $\times 10$ magnification).



Figure 2 (A) The scaly patch on the anterior neck had resolved, but a new papule appeared in the midline area of the neck. (B) The papule displayed an amorphous white structure surrounded by crown-like vessels under dermoscopy (at $\times 10$ magnification).

Discussion

The exact pathogenesis of Meyerson's phenomenon remains unclear, but it is thought to be an immune-mediated process triggered by ultraviolet exposure, interferon treatment, or viral infections.¹

The diagnosis of Meyerson's phenomenon primarily relies on its typical clinical presentation, which may range from an erythematous halo with poorly defined borders to yellowish crusts and a scaly surface surrounding a central lesion.² Dermoscopy is useful in diagnosing Meyerson's phenomenon and its underlying skin condition. The

dermoscopic findings of halo dermatitis are consistent with other forms of eczematous dermatitis, including the presence of dotted blood vessels and white-yellow scales.² In this case, the dermoscopic findings revealed characteristic features of both molluscum contagiosum and dermatitis, which may support the diagnosis and help avoid the need for an invasive histological examination, although they are not definitive. Conditions to consider in the differential diagnoses of Meyerson's phenomenon include halo nevi and tinea corporis.

Topical corticosteroids are the most commonly used treatment. If the patient does not respond to corticosteroid treatment, excision of the central lesion may result in the resolution of the dermatitis.¹ A good response to topical corticosteroids is often useful in supporting the diagnosis of Meyerson's phenomenon,² as seen in our patient. Reports indicate that halo dermatitis caused by melanocytic nevi often resolves spontaneously within weeks,¹ but in this case, the dermatitis persisted for six months without signs of spontaneous resolution.

Long-term follow-up of Meyerson's phenomenon induced by melanocytic nevi has shown that halo dermatitis can frequently recur around the same lesion and/or other lesions.¹ In our case, the patient's Meyerson's phenomenon resolved, but a new molluscum contagiosum lesion appeared in the adjacent area of the anterior neck without recurrence of the dermatitis. Molluscum dermatitis is believed to be triggered by manipulation of molluscum contagiosum lesions, leading to the deposition of molluscum bodies into the dermis and inducing an intense inflammatory reaction.⁵ The occurrence of this phenomenon may be influenced by the degree of external mechanical force, which may vary between lesions, thereby making it difficult to predict.

Conclusion

In conclusion, we report a rare case of Meyerson's phenomenon induced by molluscum contagiosum. When encountering eczematous lesions with a halo-like configuration, the possibility of Meyerson's phenomenon should be considered. Careful examination of the central lesion is essential to identify any underlying primary skin condition.

Consent

Written informed consent was obtained from the patient for the publication of this case report and any accompanying images. Institutional approval was not required for this case study.

Acknowledgments

We thank the patient for his permission to publish this information.

Disclosure

The authors report no conflicts of interest related to this work.

References

1. Almarzooqi KA, Abdelhadi S. Unusual appearance of Meyerson phenomenon arising from a congenital melanocytic nevus: case report and literature review. *Cureus*. 2024;16(8):e68021. doi:10.7759/cureus.68021
2. Verzi AE, Caruso G, Broggi G, Micali G, Carpinteri A, Lacarrubba F. Meyerson phenomenon arising on dermatofibroma: report of 2 cases with dermatoscopy and reflectance confocal microscopy and literature review. *JAAD Case Rep*. 2022;30:17–20. doi:10.1016/j.jcdr.2022.09.031
3. Calderón-Castrat X, Conde-Ferreiros A, Yuste-Chaves M, Santos-Birz A. The red flag: Meyerson phenomenon in malignant melanoma. *Actas Dermosifiliogr*. 2021;112(3):259–260. doi:10.1016/j.ad.2019.04.015
4. Berger EM, Orlov SJ, Patel RR, Schaffer JV. Experience with molluscum contagiosum and associated inflammatory reactions in a pediatric dermatology practice: the bump that rashes. *Arch Dermatol*. 2012;148(11):1257–1264. doi:10.1001/archdermatol.2012.2414
5. Jeyaseelan PK, Murthy AB, Narasimhan M, Ramakrishnan R. Clinico-dermoscopic report of molluscum dermatitis: a pearly puzzle in focus. *Cureus*. 2024;16(12):e75835. doi:10.7759/cureus.75835

Clinical, Cosmetic and Investigational Dermatology

Publish your work in this journal

Clinical, Cosmetic and Investigational Dermatology is an international, peer-reviewed, open access, online journal that focuses on the latest clinical and experimental research in all aspects of skin disease and cosmetic interventions. This journal is indexed on CAS. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/clinical-cosmetic-and-investigational-dermatology-journal>

Dovepress
Taylor & Francis Group