

CASE REPORT

Idiopathic Multiple Eruptive Milia Occurred in Unusual Sites

Eujin Cho, M.D., Sang Hyun Cho, M.D., Ph.D., Jeong Deuk Lee, M.D., Ph.D

Department of Dermatology, College of Medicine, The Catholic University of Korea, Seoul, Korea

Milia are small, white, benign keratinous cysts that are frequently encountered. Multiple eruptive milia are rare, and are characterized by the development of milia that are more extensive in number and distribution than would be expected in primary milia. We report a case of a 19-year-old girl with tiny, white papules in her axillae and on her abdomen with a review of the relevant literature. (**Ann Dermatol 22(4) 465 ~ 467, 2010**)

-Keyword-

Multiple eruptive milia

INTRODUCTION

Milia are small, epithelium-lined keratinous cysts in the dermis thought to result from plugging of pilosebaceous or eccrine sweat ducts. Milia present as 1~2 mm, white, domed papules, most commonly on the face. They may appear spontaneously (primary milia) or after clearing of inflammatory skin diseases and trauma (secondary milia)¹. Multiple eruptive milia represent an unusual condition in which numerous lesions develop suddenly on the face and trunk. We describe a case of multiple eruptive milia spontaneously occurred in unusual sites in a 19-year-old girl.

Received October 6, 2009, Revised January 13, 2010, Accepted for publication February 22, 2010

Corresponding author: Jeong Deuk Lee, M.D., Department of Dermatology, Incheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, 665 Bupyeong-dong, Bupyeong-gu, Incheon 403-720, Korea. Tel: 82-32-510-5528, Fax: 82-32-506-9514, E-mail: leejd@olmh.cuk.ac.kr

CASE REPORT

A 19-year-old girl presented with asymptomatic, white papules on the abdomen and in both axillae that began to develop 5 years prior to her presentation. The patient was otherwise in good health, and there was no history of trauma or excessive exposure to sunlight. No similar eruptions were noted in family members. Cutaneous examination revealed multiple, white, firm, discrete, 1~2 mm papules on the abdomen and in both axillae (Fig. 1). Histologic examination of the lesions revealed two sub-epidermal keratin-filled cysts lined with stratified epithelium (Fig. 2). No treatment was desired or administered.

DISCUSSION

Milia can be classified as primary or secondary. Primary milia develop spontaneously and are common on the faces of newborns. Primary milia may also be present on the trunk and extremities. In children and adults, primary milia are found mainly on the eyelids and cheeks. Secondary milia may occur anywhere following trauma, for example burns, subepidermal blistering diseases, dermabrasion, radiotherapy, or following topical therapy with glucocorticoids or 5-fluorouracil¹. Secondary milia may also be associated with certain genodermatoses. Other patterns of milia include milia en plaque and multiple eruptive milia. Milia en plaque is characterized by multiple, minute, white papules within an erythematous plaque, commonly located on the ears².

The first report of multiple eruptive milia was published by Miescher³ in 1957. Miescher³ described a case of multiple eruptive milia associated with multiple trichoepitheliomas on the face, thought to be an example of the multiple trichoepithelial syndrome. Langley et al.⁴ classified multiple eruptive milia into three categories: 1) spontaneous without a known cause or association (i.e., idio-

pathic); 2) a familial pattern with autosomal dominant transmission, and, 3) a component of a genodermatosis. Only six cases of idiopathic multiple eruptive milia have been reported in the English literature (Table 1)⁴⁻⁹, and two cases have been reported in the Korean dermatologic literature^{10,11}. Reported sites of occurrence include the face, scalp, neck, upper trunk, shoulders, and arms. This is the first reported case of idiopathic multiple eruptive milia on the abdomen and axillae. Formerly, the localization of multiple eruptive milia to sun-exposed areas, such as the head, neck, and chest, led some authors to suggest sunlight as a precipitating factor⁴. As our patient developed milia in non-sun-exposed skin, however, we suggest that stimuli other than sunlight play a role in the pathogenesis of multiple eruptive milia. The causative factor for multiple eruptive milia remains unclear. However, external stimuli such as friction or rubbing may cause invaginations of epidermal cells and result in multiple eruptive milia.

Multiple eruptive milia have also been described in families with autosomal dominant transmission⁴. Published

cases include a father and son presented with eruptive milia on the face, neck, shoulders, upper back, and axillae who were otherwise healthy¹², and a mother and son with lesions on the face and upper trunk¹³. In the latter, the son



Fig. 2. The histopathologic features show small keratin-filled cysts in the superficial dermis (H&E, ×100).



Fig. 1. Multiple, white, 1~2 mm papules are noted on the abdomen and both axillae.

Table 1. Cases of spontaneous multiple eruptive milia in the English literature

Reference	Year	Sex/Age at presentation	Site	Affected family members	Associated dermatoses	Pathogenesis
Thies and Schwarz ⁵	1961	M/66	Face, neck, and upper chest	None	None	Spontaneous
Langley et al. ⁴	1997	M/71	Upper trunk, shoulders, and arms	None	History of nummular dermatitis	Spontaneous
Wolfe and Gurevitch ⁶	1997	F/48	Neck and back	None	None	Spontaneous
Cairns and Knable ⁷	1999	M/15	Eyelids and nose	None	Mild acne vulgaris	Spontaneous
Diba et al. ⁸	2005	F/68	Scalp and chin	None	Ear eczema	Spontaneous
Diba et al. ⁹	2008	M/9	Nose, cheeks, and shoulder	None	None	Spontaneous
Our case	2009	F/19	Abdomen and axillae	None	None	Spontaneous

also had striate leukonychia. Multiple eruptive milia have also been reported in association with genodermatoses, such as the basaloid follicular hamatoma syndrome, Rombo syndrome, Bazex syndrome, orofacodigital syndrome I, and Gardners syndrome¹.

Differential diagnoses of multiple eruptive milia include miliaria crystallina, eruptive syringoma, eruptive vellus hair cyst, and verruca plana. Generalized idiopathic calcinosis cutis mimicking multiple eruptive milia has also been reported, and requires differentiation¹⁴. Commonly administered treatment modalities for milia include excision, followed by extrusion of the keratin core, carbon dioxide laser, curettage, mild electrocautery, and electro-dessication⁹. Successful treatment has also been reported with topical tretinoin and ER: YAG laser¹.

In summary, we report our experience of a patient with a 5-year history of multiple eruptive milia on her abdomen and in her axillae with no definite causative factor, which represents a rare case of idiopathic multiple eruptive milia that occurred in unusual sites.

REFERENCES

1. Berk DR, Bayliss SJ. Milia: a review and classification. *J Am Acad Dermatol* 2008;59:1050-1063.
2. Cho SH, Chae KS, Park YM, Cho BK. Milia en plaque. *Ann Dermatol* 1997;9:174-176.
3. Miescher G. Eruptive milia and Brooke's epithelioma adenoides cysticum. *Dermatologica* 1957;115:712-716.
4. Langley RG, Walsh NM, Ross JB. Multiple eruptive milia: report of a case, review of the literature, and a classification. *J Am Acad Dermatol* 1997;37:353-356.
5. Thies W, Schwarz E. Multiple eruptive milia-an organoid follicle hamartoma. *Arch Klin Exp Dermatol* 1961;214:21-34.
6. Wolfe SF, Gurevitch AW. Eruptive milia. *Cutis* 1997;60:183-184.
7. Cairns ML, Knable AL. Multiple eruptive milia in a 15-year-old boy. *Pediatr Dermatol* 1999;16:108-110.
8. Diba VC, Al-Izzi M, Green T. A case of eruptive milia. *Clin Exp Dermatol* 2005;30:677-678.
9. Diba VC, Handfield-Jones S, Rytina E, Hall P, Burrows N. Multiple eruptive milia in a 9-year-old boy. *Pediatr Dermatol* 2008;25:474-476.
10. Kim MY, Lee HJ, Kim JW. A case of multiple eruptive milia. *Korean J Dermatol* 2001;39:348-350.
11. Kim JY, Park SJ, Yi JA, Lee WJ. A case of multiple eruptive milia occurring on both external ears. *Korean J Dermatol* 2004;42:1212-1214.
12. Heard MG, Horton WH, Hambrick GW Jr. The familial occurrence of multiple eruptive milia. *Birth Defects Orig Artic Ser* 1971;7:333-337.
13. Schimpf A, Pons F. Multiple eruptive milia and striated leukonychia. *Z Hautkr* 1974;49:207-214.
14. Mehta JN, Berk DR, Hanson SG, Lind AC, Mallory SB. Generalized milialike idiopathic calcinosis cutis. *Arch Dermatol* 2006;142:1238-1239.