

Atypical clinical presentation of molluscum contagiosum in an epidermal cyst

Sir,
Molluscum contagiosum usually presents as multiple, dome-shaped, skin-colored papules with a shiny surface, and central umbilication. It usually affects children and young adults. Epidermal cyst is an epithelial-lined, keratin-containing cyst caused by plugging of pilosebaceous units. Clinically, it presents as a dermal or subcutaneous soft nodule with a central punctum. Molluscum contagiosum occurring in an epidermal cyst is unusual, though there are a few previous reports of this presentation^[1-5] [Table 1] in which the clinical appearance showed typical features of epidermal cyst or molluscum contagiosum. We report molluscum contagiosum occurring in an epidermal cyst, with an atypical presentation.

A 41-year-old male presented with an asymptomatic, solitary, 0.8 cm-sized yellowish to pinkish growth on his back [Figure 1]. He did not have any medical history suggestive of immunosuppression. He discovered the lesion a few days before visiting our hospital. Macroscopically, the morphology of the lesion was similar to a wart or a pyogenic granuloma. Punch biopsy was done for the diagnosis and treatment of the lesion. On histopathologic examination, the upper dermis contained a cyst, which had a wall of stratified, squamous layers with an intact granular layer corresponding to the histopathology of epidermal cyst. The cyst cavity was filled with eosinophilic, laminated keratin material. There were abundant eosinophilic inclusion bodies in the cyst cavity and

focal areas of the cyst wall, suggestive of molluscipox infection [Figure 2]. We diagnosed this case as molluscum contagiosum in an epidermal cyst. The rest of the lesion was removed by electrodesiccation. During 2 months of follow-up, there had been no signs of recurrence.

Molluscum contagiosum in an epidermal cyst is an unusual presentation. The exact mechanism has not been proved, but there are two main hypotheses on its formation.^[2-5] One hypothesis states that there was co-inoculation of molluscum contagiosum virus at the time of the formation of the epidermal cyst. The other states that there is invasion by molluscum contagiosum virus into a pre-existing epidermal cyst through the follicular ostium that connects the overlying epidermis with the cyst. The distinction between these variants is usually undertaken by both clinical and histological characteristics. In the first case, a clinically preceding epidermal cyst does not exist and histologically molluscum bodies are found within the cyst wall. In the latter case, an epidermal cyst is found before the existence of molluscum contagiosum lesions, and histology shows a normal epidermal cyst wall that does not contain virus infected cells. In our case, chronologic sequence of clinical presentation was not ascertained as the patient found the lesion accidentally. On histopathological examination, molluscum inclusion bodies were found not only in the cyst but also in the cyst wall. Hence, we suggest that the molluscum

Table 1: Summary of previous cases of molluscum contagiosum occurring in epidermal cyst

	Sex	Age (years)	Site	Size	Clinical finding	Other molluscum
Fellner <i>et al.</i> 1979 ^[1]	Female	28	Eyelid	3 mm	Firm, nontender, translucent, shiny umbilicated papule	-
Park <i>et al.</i> 1992 (3 cases) ^[4]	Male	23, 23, 31	Penile shaft. Left inguinal area, inguinal area, respectively	1×0.3 cm	Elevated, oval nodules	Co-existence of two lesions in the third case
Egawa <i>et al.</i> 1995 ^[2]	Male	68	Scalp, face, neck, upper chest, upper back	15-25 mm	Multiple cystic tumors	Co-existence of 5 lesions
Chiu <i>et al.</i> 2010 ^[5]	Female	30	Right buttock	1 cm	Oval, firm, flesh-colored nodule	-
Phelps <i>et al.</i> 2010 ^[3]	Female	51	Left thigh	7 mm	Flesh-colored papule	-
	Male	32	Left chest	1 cm	Flesh-colored nodule	-

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Figure 1: A solitary, 0.8 cm-sized, erythematous to yellowish growth on the back

contagiosum virus might have been co-infected at the time of epidermal cyst formation.

Most epidermal cysts have a small ostium opening to the skin surface. The molluscum contagiosum virus can enter into the epidermal cyst through this ostium. The ostium can also spread molluscum contagiosum virus from the infected epidermal cyst to the neighbouring skin. For this reason, Chiu *et al.* proposed that molluscum contagiosum infestation in an epidermal cyst is still infectious. In their case, several small molluscum contagiosum of the skin appeared several months after the epidermal cyst developed. The chronological relationship noted in their case supports this hypothesis.^[5]

In the previous case reports of molluscum contagiosum in an epidermal cyst, the clinical presentations were similar to that of epidermal cyst or molluscum contagiosum.^[1-5] In our case, the lesion was a pinkish mass resembling pyogenic granuloma, and had a verrucous appearance resembling wart. Histopathologic examination might be the only method for accurate diagnosis in such cases.

*Han Mi Jung, Won Joon Choi, Ki Min Sohn,
Jung Eun Kim, Hoon Kang*

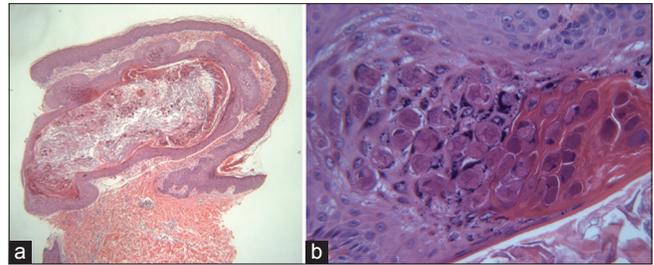


Figure 2: (a) Abundant eosinophilic molluscum bodies inside the cyst and in the cystic wall (H and E, x40). (b) Epithelial cells containing intracytoplasmic inclusion bodies (H and E, x400)

Department of Dermatology at St. Paul's Hospital,
College of Medicine, 620-56,
Jeonnon-dong, Dongdaemoon-ku,
Seoul, Korea

Address for correspondence: Prof. Hoon Kang,
Department of Dermatology at St. Paul's Hospital,
College of Medicine, 620-56,
Jeonnon-dong, Dongdaemoon-ku,
Seoul, Korea.
E-mail: johnkang@catholic.ac.kr

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