Encapsulated fat necrosis, also named 'nodular cystic fat necrosis', 'mobile encapsulated lipoma' or 'posttraumatic degeneration and herniation', was first described in 1975 by Schmidt-Hermes and Loskant [4]. It is characterized by solitary or multiple, subcutaneous nodules, mostly located on the lower extremity and consisting of degenerated or necrotic fat tissue encapsulated by thin to thick fibrous tissue. The exact causes remain unclear; however, trauma and subsequent interruption of blood supply are speculated to play a major role [5]. Histopathology shows a fibrous capsule with degenerated or necrotic fat tissue in between, sometimes accompanied by inflammation and calcification.

The synopsis of clinical aspect, ultrasound, aspirated tissue and histopathology confirmed the diagnosis of encapsulated fat necrosis in our patient. It seems that the injected PPC-containing substance led to fat necrosis with the subsequent formation of surrounding fibrosis [5]. The edema, typically induced by injection lipolysis, may also play an additional role, probably by reducing the local blood supply due to pressure. In our patient, further treatments with PPC were rejected due to the complication. Both physician and patient did not observe sufficient fat reduction after the performed 2 injections.

To the best of our knowledge, our patient is the first case to present encapsulated fat necrosis after injection lipolysis for the reduction of localized fat accumulations. We assume that encapsulated fat necrosis has to be seen as a possible complication of the nonsurgical procedure described above. Considering the supposed mechanism of action of PPC and the frequency of the procedure, we assume that encapsulated fat necrosis is underreported.

References

- 1 Bechara FG, Sand M, Sand D, Rotterdam S, Stucker M, Altmeyer P, Hoffmann K: Lipolysis of lipomas in patients with familial multiple lipomatosis: an ultrasound-controlled trial. *J Cutan Med Surg* 2006;10: 155–159.
- 2 Rotunda AM, Suzuki H, Moy RL, Kolodney MS: Detergent effects of sodium deoxycholate are a major feature of an injectable phosphatidylcholine formulation used for localized fat dissolution. *Dermatol Surg* 2004;30:1001–1008.
- 3 Bechara FG, Sand M, Hoffmann K, Sand D, Altmeyer P, Stucker M: Fat tissue after lipolysis of lipomas: a histopathological and immunohistochemical study. *J Cutan Pathol* 2007;34:552–557.
- 4 Schmidt-Hermes HJ, Loskant G: Verkalkte Fettgewebsnekrose der weiblichen Brust. *Med Welt* 1975;26:1179–1180.
- 5 Kiryu H, Rikihisa W, Furue M: Encapsulated fat necrosis – A clinicopathological study of 8 cases and a literature review. *J Cutan Pathol* 2000;27:19–23.

Falk Georges Bechara, MD
Department of Dermatology and Allergology
Ruhr University Bochum, St. Josef Hospital
Gudrunstrasse 56, DE-44791 Bochum (Germany)
Tel. +49 234 5090, Fax +49 234 5093 445
E-Mail f.bechara@derma.de

Dermatology 2008;216:181–183
DOI: 10.1159/00011520

Erythema-Multiforme-Like Eruption Recurring in Ultraviolet-Exposed Skin

Risa Tamagawa-Mineoka, Norito Katoh, Koji Masuda,
Saburo Kishimoto

Department of Dermatology, Kyoto Prefectural University of
Medicine Graduate School of Medical Science, Kyoto, Japan

Key Words

Erythema multiforme • Fixed drug eruption • Recall
phenomenon • Ultraviolet B

We report a case of an erythema multiforme (EM)-like eruption in a 48-year-old Japanese woman who had suffered from recurrent exudative erythema of the face, trunk and extremities for a year. Eruption seemed to recur at the same sites with ultraviolet (UV) exposure. In phototesting, UVB irradiation induced macules and papules extending beyond the exposed area in the back, and eruptions resembling the target lesions appeared in the trunk and extremities. The patient was diagnosed with EM-like eruption induced by UVB irradiation. Recently, cases of drug eruptions occurring in a photo-distributed pattern have been reported. In these reports, the involvement of photo recall phenomenon was discussed. EM-like eruption is known to be triggered by UV exposure, however, the mechanism has not been revealed yet. Our case suggests that EM-like eruption recurring at UV-exposed areas may be involved in recall phenomenon.

The patient was a 48-year-old Japanese woman who had suffered from recurrent exudative erythema of the face, trunk and extremities for a year. She had taken no medication during this period. Her medical history including drug allergy was insignificant. She had worked as an aromatherapist for a year. Eruptions often appeared within several hours after UV exposure on a sunny day and disappeared within about a week. Eruptions seemed to recur at the sites of UV exposure. These findings suggested an abnormal response to UV irradiation; therefore, phototesting was performed by illuminating the back with UVA (5, 10 and 15 J/m²) and UVB (10 doses: 20–200 mJ/m²) using a Dermalay M-DMR-100. UVB-induced macules and papules extending beyond the exposed area appeared 24 h after UVB irradiation at doses above 160 mJ/m² (fig. 1), and eruptions resembling target lesions appeared at the same site as previous eruptions on the trunk and extremities (fig. 2). UVA irradiation did not cause erythematous lesions. To assess whether there was a possible allergy to essential oils, patch and photopatch testing was performed. All test reactions were negative. Despite careful history-taking, other agents suspected to be causative were not found.

A skin biopsy specimen from the right forearm showed satellite cell necrosis of keratinocytes, lymphocytic infiltration around the upper dermal vessels and along the dermoepidermal junction, and edema of the papillary dermis. Laboratory findings were normal. Serological tests were negative for herpes simplex virus (HSV) and mycoplasma infection, and tests for antinuclear and anti-SS-A/B antibodies were also negative. The patient was diagnosed as having an erythema-multiforme (EM)-like eruption induced by UVB

Fig. 1. Erythematous plaques on UVB-exposed skin.

Fig. 2. Papular and urticarial target lesions on the right forearm and hand.

irradiation, based on the provocative UVB tests and clinical and histological findings. Because the patient had suffered from recurrent eruptions since beginning to work as an aromatherapist, the possible involvement of aroma was strongly suspected despite the negative patch and photopatch reactions. Prednisolone 30 mg/day was started and then tapered with improvement of clinical symp-

toms. With the subsequent avoidance of UV and essential oils, there was no recurrence of the eruptions.

EM is a self-limited, usually mild and relapsing exanthematic reaction of the skin that is characterized by target-shaped, urticarial plaques and, histologically, satellite cell necrosis of the epidermis. These features are the expression of an archetypal polyetiologic reaction pattern of the skin, i.e. a cytotoxic immunological attack on keratinocytes expressing non-self antigens [1]. The three common triggers of EM are HSV infection, mycoplasma infection and drug reactions. Recurrent EM is preceded by HSV episodes in up to 80% of patients [2]. Sun exposure is also known to trigger EM [1]; however, the mechanism has not been revealed yet.

UV exposure induces abnormal responses in some individuals. Recently, cases of fixed drug eruption (FDE) [3] and drug-induced hypersensitivity syndrome [4] occurring in a photodistributed pattern have been reported. In these reports, the involvement of a recall phenomenon was discussed, i.e. an inflammatory response that occurs in a previously UV-damaged tissue following drug administration [5]. In this phenomenon, immune cells recruited from the circulation to the skin following UV irradiation are suspected to persist in the lesion and then to cross-react with administered drugs [5]. FDE recurs as solitary, erythematous macules in the same areas after each administration of the causative drug. Histologically, the FDE lesions consist of an interface dermatitis with lymphocytes at the dermal-epidermal junction and degenerative changes of epithelium with dyskeratosis [6], suggesting that skin lesions of EM may bear resemblance to FDE. According to Shiohara and Mizukawa [7], the mechanism of recurrence of FDE lesions in exactly the same areas may depend on the recall phenomenon, which occurs upon various previous insults such as X-ray irradiation and trauma as well as UV exposure [5]. Moreover, a wide variety of nonspecific factors other than drugs, such as cytokines, can trigger the development of FDE lesions [8]. Therefore, this case may be FDE occurring in a photodistributed pattern due to some nonspecific factors including aromatic compounds. In phototesting, the appearance of an eruption in UVB-irradiated areas of the back might induce a reactivation of cells resident in the skin of the trunk and extremities. Our case suggests that an EM-like eruption recurring in UV-exposed areas may be FDE caused by the recall phenomenon, and we present this case to facilitate recognition of this entity.

References

- 1 Fritsch PO, Ruiz-Maldonado R: Erythema multiforme, Stevens-Johnson syndrome, and toxic epidermal necrosis; in Freedberg IM, Eisen AZ, Wolff K, Austen KF, Goldsmith LA, Katz SI (eds): *Dermatology in General Medicine*, ed 6. New York, McGraw-Hill, 2003, pp 543–557.
- 2 Aslanzadeh J, Helm KF, Epsy MJ, Muller SA, Smith TF: Detection of HSV-specific DNA in biopsy tissue of patients with erythema multiforme by polymerase chain reaction. *Br J Dermatol* 1992;126:19–23.
- 3 Ee HL, Yosipovitch G: Photo recall phenomenon: an adverse reaction to taxanes. *Dermatology* 2003;207:196–198.
- 4 So JS, Edwards SL, Ibbotson SH: Carbamazepine-induced hypersensitivity syndrome occurring in a photodistributed pattern. *Dermatology* 2006;213:166–168.
- 5 Shiohara T, Mizukawa Y: Recall phenomenon: some skin-resident cells remember previous insults. *Dermatology* 2003;207:127–129.
- 6 Shear NH, Knowles SR, Sullivan JR, Shapiro L: Cutaneous reactions to drugs; in Freedberg IM, Eisen AZ, Wolff K, Austen KF, Goldsmith LA, Katz SI (eds): *Dermatology in General Medicine*, ed 6. New York, McGraw-Hill, 2003, pp 1330–1337.

- 7 Shiohara T, Mizukawa Y: Fixed drug eruption: easily overlooked but needing new respect. *Dermatology* 2002;205:103–104.
- 8 Bernand S, Scheidegger EP, Dummer R, Burg G: Multifocal fixed drug eruption to paracetamol, tropisetron and ondansetron induced by interleukin 2. *Dermatology* 2000;201:148–150.

Risa Tamagawa-Mineoka

Department of Dermatology, Kyoto Prefectural University of Medicine
Graduate School of Medical Science

465, Kajii-cho, Kawaramachi-Hirokoji, Kamigyo-ku

Kyoto 602-8566 (Japan)

Tel./Fax +81 75 251 5586, E-Mail risat@koto.kpu-m.ac.jp

Dermatology 2008;216:183

DOI: 10.1159/000111521

Symmetrical Drug-Related Intertriginous and Flexural Exanthema

Ronni Wolf, Batya Davidovici

Dermatology Unit, Kaplan Medical Center, Rechovot, Israel

Key Words

Symmetrical drug-related intertriginous and flexural exanthema · Radio contrast medium · Drug rash with eosinophilia and systemic symptoms

We congratulate Arnold et al. [1] for their interesting report on symmetrical drug-related intertriginous and flexural exanthema (SDRIFE, baboon syndrome). We especially commend the first criterion of this syndrome stating, what we emphasized some 15 years ago [2], that SDRIFE should be distinguished from hematogenous or systemic contact-type dermatitis, as suggested by Andersen et al. [3], when they first reported this syndrome.

We would like to make two comments that by no means detract from the scientific and educational value of this paper.

First, the authors state that ‘the particular pattern of SDRIFE has not been observed so far’ as a reaction to radio contrast medium (RCM). We refer them to our report [4] describing 11 patients with SDRIFE, one of them (case 10) due to RCM, thus supporting a causal relationship between RCM and SDRIFE.

Second, the fifth criterion of SDRIFE is absence of systemic symptoms and signs, which according to the authors [1] is important to distinguish SDRIFE from drug rash with eosinophilia and systemic symptoms (DRESS). Here, we disagree. We contend that a patient with an eruption that has the cutaneous appearance of SDRIFE but with additional systemic organ involvement should still be classified as SDRIFE and not as DRESS. As we had suggested in an earlier publication [5], we believe that all drug eruptions – involvement of other organ systems notwithstanding – are first and foremost dermatological diseases and, as such, they should be classified according to the cutaneous lesions. In other words, SDRIFE with systemic symptoms and/or eosinophilia should be defined as SDRIFE with systemic organ involvement and not as DRESS.

References

- 1 Arnold AW, Hausermann P, Bach S, Bircher AJ: Recurrent flexural exanthema (SDRIFE or baboon syndrome) after administration of two different iodinated radio contrast media. *Dermatology* 2007;214:89–93.
- 2 Wolf R, Elman M, Brenner S: Drug-induced ‘intertrigo’. *Int J Dermatol* 1993;32:515–516.
- 3 Andersen KE, Hjorth N, Menne T: The baboon syndrome: systemically induced allergic contact dermatitis. *Contact Dermatitis* 1984;10:97–100.
- 4 Wolf R, Orion E, Matz H: The baboon syndrome or intertriginous drug eruption: a report of eleven cases and a second look at its pathomechanism. *Dermatol Online J* 2003;9:2.
- 5 Wolf R, Matz H, Marcos B, Orion E: Drug rash with eosinophilia and systemic symptoms vs toxic epidermal necrolysis: the dilemma of classification. *Clin Dermatol* 2005;23:311–314.

Ronni Wolf, MD

Dermatology Unit, Kaplan Medical Center

IL-76100 Rechovot (Israel)

Fax +972 9 956 0978

E-Mail wolf_r@netvision.net.il

Dermatology 2008;216:183–184

DOI: 10.1159/000111522

Symmetrical Drug-Related Intertriginous and Flexural Exanthema – Reply

Andreas J. Bircher, Andreas Arnold, Silvy Bach, Peter Häusermann

Allergy Unit, Department of Dermatology, University Hospital, Basel, Switzerland

Key Words

Symmetrical drug-related intertriginous and flexural exanthema · Flexural exanthema · Barium sulfate

We thank Dr. Wolf and Dr. Davidovici for their thoughtful comments on our case report [1].

We regret that the clinical case observation of a 79-year-old woman who developed the particular pattern of flexural exanthema a few hours after receiving barium sulfate by the gastrointestinal route [2] was not mentioned in our article. Since barium sulfate contains some additives, another allergen could have been responsible. To our best knowledge, iodinated radio contrast media have not been implicated in symmetrical drug-related intertriginous and flexural exanthema (SDRIFE) so far.

We definitely agree with the authors that the description and diagnosis of cutaneous drug eruptions often require the expertise of a dermatologist. However, most patients with cutaneous drug eruptions are initially seen by nondermatologists such as general practitioners. Particularly these physicians should be aware of the specific danger signs of the severer drug eruptions with internal organ involvement [3]. On the other hand, we believe that it is less a particular morphological pattern, such as a maculopapular exanthema or SDRIFE, than the danger signs of severer reactions,