Case Report

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Erythema gyratum repens: Another Case of a Rare Disorder but No New Insight into Pathogenesis

S.R.	Rojo	Sánchez
R.S.	Suárez	Fernández
E.		de Eusebio Murillo
E.L.	López	Bran
F.S.	Sanchez	de Paz
A.R.	Robledo	Aguilar

Department of Dermatology, Hospital Universitario San Carlos, Madrid, Spain

Key Words

Erythema gyratum repens

Paraneoplastic syndrome

Figurate erythema

Abstract

Erythema gyratum repens (EGR) is an uncommon but distinctive dermatosis characterized by [marble-like](#) swirls of erythema and a thin covering scale over the trunk, axillae and groins which has been associated with malignancy. Bronchial carcinoma has been the most frequent neoplasm associated. A case of EGR in a 50-year-old man with carcinoma of the lung is reported. The onset of dermatosis preceded the discovery of the neoplasm by 9 months. Oral corticosteroids induced the disappearance of the skin lesions. No recurrence was observed after discontinuation of the treatment. The patient died 1 year after the onset of dermatosis.

Sonsoles Rojo Sanchez, C/Gómez Tejedor 34, E-28224 Madrid (Spain)

In 1953, Gammel [1] described in detail a peculiar skin eruption reminiscent of 'knotty cypress wood grain' in a woman who developed a breast cancer. He named it erythema gyratum repens (EGR; repens from the Latin meaning crawl or creep) [1]. He noted that it was a distinctive syndrome in association with an underlying visceral malignancy. He also noted that the condition cleared when the malignancy was surgically treated [1]. Since its initial description at least 49 additional patients with EGR have been reported [2]. We report a further patient with EGR not only because of its rarity but because this case associated with carcinoma of the lung had the following features: (a) an initial nonspecific erythematous eruption; (b) a later onset of typical lesions of EGR; (c) disappearance of gyrate lesions within 1 month with systemic corticosteroids; (d) the absence of a further flare-up when treatment was stopped.

Case Report

A 50-year-old man was seen for the first time in May 1994 for a pruritic eruption affecting the trunk and extremities. He presented with erythematous and edematous lesions, some of them semiannular clearing in the center. The diagnosis of erythema annulare centrifugum was made. A skin biopsy specimen showed a mildly acanthotic epidermis and a stratum corneum with compact orthokeratosis and some degree of para-keratosis. General examination and routine laboratory studies were unremarkable. The patient was given a course of 20 mg/day of prednisone. He showed a substantial improvement but not complete clearing of the

eruption. When the dose of prednisone was reduced, there was a recrudescence of his skin eruption.

By the end of October, the rash changed its clinical pattern. The patient presented with a diffuse eruption characterized by multiple erythematous, slightly raised serpiginous bands giving the appearance of wood grain. A fine whitish scaling was observed on the edge of the lesions. They were remarkable on the axillae and groins composed of concentric rings of erythema and scaling (fig. 1). The remainder of the physical examination and routine laboratory findings were normal. A diagnosis of EGR was made. A new skin biopsy from an erythematous plaque showed nonspecific changes. Treatment was started with prednisone, 30 mg daily. At this time, he developed an episodic agraphia. A brain scan showed a left temporal mass and two left parietal masses with an intense edema. A primary malignancy was searched for. A computed tomography of the chest revealed a large mass in the lower lobe of the right lung. Histopathologic studies showed a non-oat-cell cancer of the lung. The skin eruption cleared 1 month later following administration of intravenous dexamethasone because of intense brain edema. Due to the widespread nature of our patient's metastases, he was not considered for surgery. He received palliative radiation therapy of the brain. There was no further flare-up of his skin condition even though corticosteroids were stopped 2 months later. The patient died in March 1995.

Discussion

EGR may be classified as one of the figurate erythemas. Its recognition assumes prime clinical importance because of the high rate of correlation with a visceral malignancy. Lung carcinoma was the most common malignancy [3-10].

Some important features were noted in our case. The first is that although the eruption started in February 1994 as an erythema annulare centrifugum, typical lesions of EGR were not noted until November, 1 month before the discovery of the malignancy. At approximately the same time as the EGR be-

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Fig. 1. Close-up of axilla showing the wavy bands of erythema with prominent scaling at the margin. Note bands of normal-appearing skin.

came evident, neurological complaints were present. There was a marked increase in the severity of the eruption and the EGR was evident corresponding to a period of neurological symptoms. The tumor was therefore specifically discovered during the EGR phase.

The second feature is that the eruption and pruritus responded temporarily to corticosteroids before the EGR was recognizable. We could also see a complete disappearance of cutaneous lesions 1 month after the EGR had become evident following oral corticosteroid therapy. In most cases for which the information is available there was a moderate to dramatic improvement following removal of the underlying tumor, chemotherapy or radiotherapy [10]. Oral corticosteroids can decrease the skin lesions. There is only one report in the English literature where the eruption completely disappeared and did not recur when the treatment was stopped [6]. In our case, despite the tumor and metastasis progression the patient was free of lesions until his death whereas usually in patients with widespread metastases the eruption may persist or recur.

It seemed pertinent to us to record one further case of EGR associated with neoplasia in order to emphasize the need for an exhaustive search for malignant neoplasm. This skin condition may be the first and very early manifestation of otherwise symptomless neoplasia. Early detection would positively affect prognosis.

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Erythema gyratum repens

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