ISSN: 2573-9565

Case Report

Journal of Clinical Review & Case Reports

Eosinophilic, polymorphic and pruritic eruption associated with radiotherapy (EPPER) in patient with tongue cancer

Jihoon Choi*

**Department of Radiation Oncology, Kosin University Gospel Hospital, Korea.*

***Corresponding author**
Jihoon Choi, Department of Radiation Oncology, Kosin University Gospel Hospital, Korea

Submitted: 13 Oct 2021; **Accepted**: 20 Oct 2021; **Published**: 01 Nov 2021

Citation: *Jihoon Choi (2021). Eosinophilic, polymorphic and pruritic eruption associated with radiotherapy (EPPER) in patient with tongue cancer. Journal of Clinical Review & Case Reports, 6(11), 765-766.*

Abstract

Eosinophilic polymorphic and pruritic eruption associated with radiotherapy (EPPER) is a rare disease entity that appears in cancer patients after radiotherapy.

We describe patient with tonsil cancer who presented with EPPER in an area that had been irradiated. The patient responded to the application of topical corticosteroids and systemic antihistamines.

Introduction

Rueda et al. described a cutaneous eruption associated with radiotherapy in patients with cancer [1].We describe one patient who developed EPPER after radiotherapy for tonsil cancer.

Case Report

A 54-year-old woman with tonsil cancer was treated with salvage radiotherapy. After she was receiving 60 Gy to the surgery area she started with an extremely pruritic skin eruption that affected mainly the neck within the radiated area. She did not have new drugs or previous skin disease. Physical examination revealed (Figure 1) localized pruritic erythematous scaly patches on the neck.

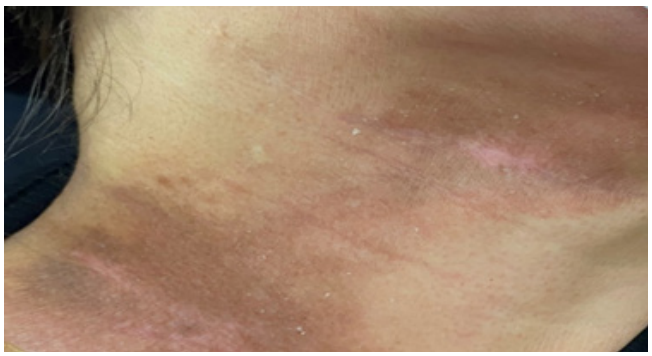

Figure 1: Macroscopic appearance of the lesions on the right neck: erythematous pruritic skin eruption.

A skin biopsy showed Eosinophilic, polymorphic, and pruritic eruption associated with radiotherapy (EPPER). She was treated with topical corticosteroids (0.05% clobetasol propionate cream) two times per day to the affected areas for 2 months. The eruption resolved within 1-month. There were improvement and no new lesions appeared the following 6 months.

Discussion

The pathological cause of EPPER is unknown.

EPPER is a spectrum of different clinical and histological cutaneous lesions that represents a cutaneous immune reactions triggered by radiotherapy.

EPPER was originally described by Rueda et al. [1]. They described a cutaneous eruption associated with radiotherapy in patients with cancer. The clinical findings that include a local or generalized pruritic rash with excoriations, erythematous papules, wheals, and less frequently vesicles, bullae and nodules. Those lesions affected mainly the lower and upper extremities in the study.

Histopathologic findings include a superficial and deep perivascular lymphohistiocytic infiltrate with eosinophils. Direct immunofluorescence shows IgM and C3 perivascular deposits in the superficial dermis [2].

Treatment for EPPER has been used with topical corticosteroids, antihistamines and UVB light [1-3]. Interferon treatment have been helpful in some patients with hypereosinophilic syndrome (HES) [4-6]. Our patient was treated with topical corticosteroids and oral antihistamines. The relative risk of developing EPPER depends on the total radiation dose. It is higher when the dose is between 26 and 67 Gy. In our case the radiation dose was 60 Gy.

References

1. Rueda RA, Valencia IC, Covelli C, Escobar C, Alzate A, Saldarriaga B, et al. (1999) Eosinophilic, polymorphic, and pruritic eruption associated with radiotherapy Arch Dermatol 135:804-810.
2. Dal Sacco D, Cozzani E, Rongioletti F, Parodi A, Rebora A (2003) EPPER syndrome: an additional case. Dermatology 206:348.
3. Gallego H, Wilke MS, Lewis EJ (2001) Delayed EPPER syndrome. Arch Dermatol 137:821-822.
4. Bockenstedt PL, Santinga JT, Bolling SF (1994) alpha-Interferon treatment for idiopathic hypereosinophilic syndrome. Am J Hematol 45:248-251.
5. Butterfield JH, Gleich GJ (1994) Interferon-alpha treatment of six patients with the idiopathic hypereosinophilic syndrome. Ann Intern Med 121:648-653.
6. Canonica GW, Passalacqua G, Pronzato C, Corbetta L, Bagnasso M (1995) Effective longterm alpha-interferon treatment for hypereosinophilic syndrome. JAllergy Clin Immunol 96:131-133.