IMAGES

Bullae And Blisters: A Rare Case of Bendamustine Skin Toxicity

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A 67-year old male was evaluated for unremitting fever of 6 months duration. Clinical examination revealed anaemia, hepatosplenomegaly and generalised lymphadenopathy. Lymph nodal biopsy and bone marrow examination showed features suggestive of mantle cell lymphoma (MCL). In view of poor performance status and old age, he was started on Bendamustine–Rituximab (BR) regimen (B-90 mg/m² × 2 days and R-375 mg/m²). During the 1st cycle, after infusion of bendamustine, patient started developing skin lesions in the form of flaccid to tense blisters and bullae over an erythematous background, proximal to injection site on left hand (Fig. 1a, b). Lesions did not involve any other part of body. Eruptions were not associated with pruritus or fever and did not progress proximal to elbow joint. In the following week, lesions resolved on its own without any medication. The lesions reappeared soon after 2nd cycle in the similar pattern and subsided successively. As the patient did not develop any life threatening adverse events related to bendamustine, patient is being planned for 3rd cycle under close observation.

Last one decade has seen bendamustine as an important addition in the therapeutic arsenal for lymphoma. BR regimen has attracted haematologists owing to lesser toxicity and almost equivalent efficacy as compared to conventional CHOP regimen (cyclophosphamide, doxorubicin,

Fig. 1 Photograph (a, b) of right hand showing blisters and tense bullae of variable size along with erythema around the cannulation site

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vincristine, and prednisolone) especially in cases of low grade lymphomas [1]. Recently, there have been few reports related to bendamustine related skin toxicity [2, 3]. An Indian experience of 16 patients who received bendamustine was reported by Malipatil et al. [4]. They noted

that more than 50 % cases developed erythematous papular skin lesions mainly over the exposed areas of limbs and trunk [4]. However no association with respect to the dose of bendamustine, number of cycles, gender of patient and type of chemotherapy protocol was found. Similarly, Nishikori et al. reported that out of 34 cases receiving BR therapy, 32 % patients developed (11/34) persistent skin eruptions in their institutional experience [5]. Interestingly, they found that these patients had higher CD8/CD4 T cell ratio and seropositivity for hepatitis B core antibody as compared to rest of the patients. They postulated that inappropriate activation of immune system by latent infections (Occult hepatitis B in this case series) can be a triggering event for such skin eruptions [5]. Literature still has limited information to postulate any concrete explanation for this pathological phenomenon. Hence we conclude that reporting of such cases will enhance better understanding of this rare entity.

Compliance with Ethical Standards

Human and Animal Rights Conducted study did not involve any animal requiring approval for the same.

Conflict of interest Authors have no conflicts of interest to declare.

References

1. Rummel MJ, Niederle N, Maschmeyer G, Banat GA, von Grnhausen U, Losen C, Kofahl-Krause D, Heil G, Welslau M, Balser C, Kaiser U, Weidmann E, Drk H, Ballo H, Stauch M, Roller F, Barth J, Hoelzer D, Hinke A, Brugger W, Study group indolent Lymphomas (StiL) (2013) Bendamustine plus rituximab versus CHOP plus rituximab as first-line treatment for patients with indolent and mantle-cell lymphomas: an open-label, multicentre, randomised, phase 3 non-inferiority trial. *Lancet* 381(9873):1203–1210
2. Nishikori M, Kitano T, Kobayashi M, Hishizawa M, Kitawaki T, Kondo T, Yamashita K, Kawabata H, Kadowaki N, Takei Y, Haga H, Takaori-Kondo A (2015) Increased number of peripheral CD8+ T cells but not eosinophils is associated with late-onset skin reactions caused by bendamustine. *Int J Hematol* 102(1):53–58
3. Gavini A, Telang GH, Olszewski AJ (2012) Generalized purpuric drug exanthema with hemorrhagic plaques following bendamustine chemotherapy in a patient with B-prolymphocytic leukemia. *Int J Hematol* 95(3):311–314
4. Malipatil B, Ganesan P, Sundersingh S, Sagar TG (2011) Preliminary experience with the use of bendamustine: a peculiar skin rash as the commonest side effect. *Hematol Oncol Stem Cell Ther* 4(4):157–160
5. Nishikori M, Kitano T, Kobayashi M, Hishizawa M, Kitawaki T, Kondo T, Yamashita K, Kawabata H, Kadowaki N, Takei Y, Haga H, Takaori-Kondo A (2015) Increased number of peripheral CD8+ T cells but not eosinophils is associated with late-onset skin reactions caused by bendamustine. *Int J Hematol* 102(1):53–58