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# Bullous fixed drug eruption related to multivitamins

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## Abstract

Multivitamins are commonly consumed over-the-counter supplements. Drug reactions related to multivitamins are rare and very few cases have been reported. This is a case of a young woman who developed bullous fixed drug eruption to multivitamins.

*Keywords: fixed drug eruption, cutaneous adverse drug reaction, multivitamins*

To the Editor:

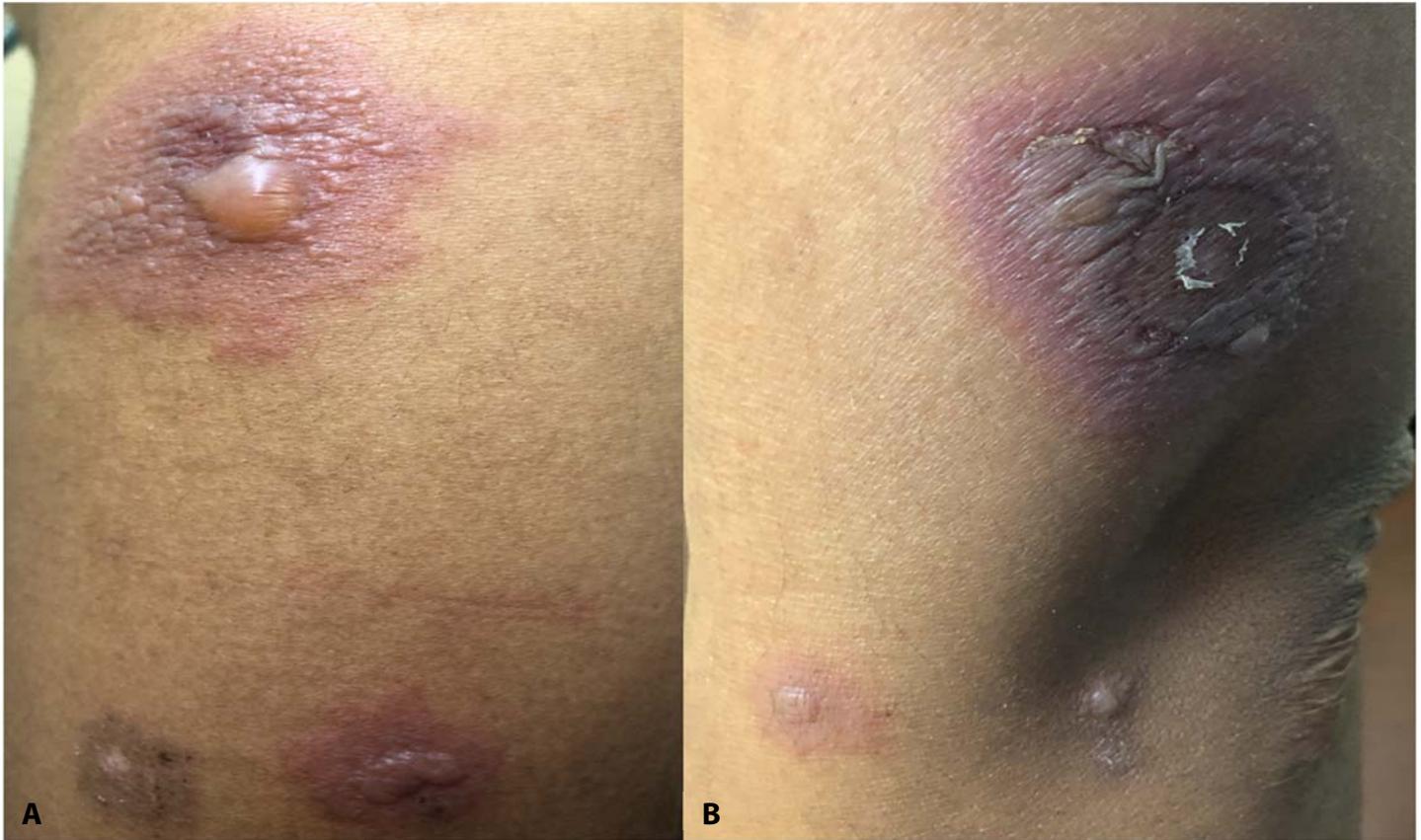
Fixed drug eruption (FDE) is a cutaneous adverse drug reaction (CADR) characterized by recurrent skin and (or) mucosal eruptions when the offending drug is re-administered. The lesions of FDE are well defined, oval or round, erythematous macules or plaques that heal with hyperpigmentation [1]. Lesions usually flare up within 30 minutes to 8 hours of drug intake, mean reaction time being approximately two hours [2].

Multivitamins are readily available supplements for multiple indications. To ascertain if a drug reaction is caused by multivitamins requires the physician to be vigilant and have a great deal of suspicion.

A 24-year-old woman with lip vitiligo, presented to the dermatology outpatient department with complaints of recurring fluid filled blisters associated with itching and burning sensation for the past two weeks. On enquiry, the patient informed that she was taking multivitamins (combination of methylcobalamin, alpha lipoic acid, folic acid, pyridoxine, and biotin) for a hair loss problem. These

lesions started erupting a day after starting the multivitamins. The patient did not discontinue the vitamins after development of the fluid-filled eruptions. She was not on any other medications.

On examination, multiple, well defined, erythematous-to-violaceous macules were present over the front of the trunk, back, bilateral arms, and forearms. Flaccid bullae were present on many macules. Some bullae had ruptured leaving behind erosions. Few hyperpigmented macules were also noted on both forearms (**Figure 1**). Patient recollected developing similar lesions one year prior when she was started on treatment for vitiligo, which included fluticasone propionate cream, tacrolimus ointment 0.1%, and a combination capsule vitamin mixture (methylcobalamine, vitamin C, folic acid, riboflavin, and calcium pantothenate). After stopping this medication, her eruption resolved with residual brownish pigmentation (**Figure 2**). The patient confirmed that lesions in the current eruption were developing at the previous site of involvement and also developing at new sites. Our diagnosis was bullous fixed drug eruption related to multivitamins. All the routine investigations were within normal limits. On applying the Naranjo algorithm a causality score of 8 was obtained which qualified for a definite adverse drug eruption. She was treated with a corticosteroid cream and oral levocetirizine for a duration of one week. On follow up, all the erosions had healed and the lesions of FDE subsided with hyperpigmentation. We were not able to pinpoint the exact vitamin or additive causing the FDE as the two multivitamins consumed by the patient were slightly different in composition.



**Figure 1. A)** Tense bullae over an erythematous base on the forearm. **B)** Ruptured bulla over an erythematous base.



**Figure 2.** Hyperpigmented macules formed by the resolution of previous lesions of fixed drug eruption.

Multivitamins of various combinations are available over-the-counter. After an extensive literature search, we were able to find only three case reports of FDE to multivitamins [3-5]. Another incidence of

FDE to multivitamins was reported in a case series [6]. This makes CADR to multivitamins a rather uncommon finding and hence, requires a great deal of suspicion for diagnosis.

Any drug is capable of causing a reaction. The physician should be all the more careful in pinpointing the culprit drug responsible for the reaction when a patient is on multiple drugs. In such a scenario, even multivitamins should be considered as the potential culprit agent until and unless proven otherwise. Multivitamins contain a wide variety of components including various additives and dyes which may also prove to be the offending agents.

### Potential conflicts of interest

The author declares no conflicts of interests.

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