Fixed Drug truption with Albendazole and It's Cross-Sensitivity with Metronidazole - A Case Report

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Introduction

Drug eruptions are common cutaneous disorders encountered by dermatologists. Some drug eruptions. although trivial, may cause cosmetic embarrassment and fixed drug eruption (FDE) is one of them[1,2]. FDE is characterized by an appearance of round or oval apparently oedematous plaques, which vary in size from few millimeters to more than ten centimeters. It may affect any part of the skin and/or mucous membrane. A patient may have multiple lesions or rarely generalized form of bullous FDE[2] with or without mucous membrane involvement and constitutional symptoms. The diagnostic hallmark is its recurrence at previously affected sites.

Most workers believe that FDE is caused solely by drugs[3]. Rarely, non-drug factors such as cold, dyes in food stuffs or pills,dysmenorrhea, fatigue, heat, ingestion of peas, beans or lentils, ipecac, karaya gum, legumes, menstruation, pregnancy, psychic factors, saccharin, ultraviolet rays and undue effort may result in fixed eruption. The FDE may be caused by a singleormultiple drugs[4]. It is commonly seen with various antimicrobials, analgesics, neurologic and psychiatric drugs. When eruptionoccurs with drugs closely related in their chemical structure, the phenomenon is tenned as "Cross-sensitivity". When drugs of totally different chemical structures precipitate exacerbation, this reaction is called 'Polyallergic sensitization, or Polysensitivity[4]".

The exact pathogenic mechanism of FDE remains unknown. Both the immunological and toxic mechanisms have been implicated but conclusive evidence is lacking.

To ascertain the specific drug causing eruption, history remains the most important tool. The diagnosis can be made on the basis of clinical appearance and course. There is consensus that only a provocation test with the suspected drug will provide certainly about its role in an eruption.

In general, fixed eruption due to the drug is considered if tile skin lesion flares up with appearance of burning and/or pruritus, erythema and oederna[6]. If the result is negative till 24 hours or 24-48 hours, a larger dose of the same drug or an initial dose of another suspected drug is given.

Sometimes general symptoms in the form of malaise, prostration, fever, nausea, vomiting, diarrhoea, abdominal cramps are seen[4].

Case Report

A forty-two years housewife presented in Department of Dermatology, Mayo Hospital, Lahore, in June, 1993 with an aysmptomatic, well defined, oval (lx 1/2 cm) hyperpigmented macule on her left cheek for the past three months. Three months previously she had fever, cough and urticaria for which amoxycillin. paracetamol and albendazole (Zentel) were prescribed by a general practitioner. Within six hours of ingestion, an crvthematous, pruritic macule (1xl[12] cm) developed on her left cheek. Four days later erythema and itching disappeared leaving behind black pigmentation. Seven years ago she had a similar erythematous lesion on the same site after receiving tablet Entamizole (diloxanide furoatc and metronidazole) for intestinal amoebiasis. Erythema subsided after three days but the residual brownish-black pigmentation disappeared over a period of one year.

Oral provocation was done with albendazole, Entamizole, metronidaozle, amoxycillin and paracetamol with half to full therapeutic dose of the durg one at a time. In case of no reaction the next drug was

tried after 48 hours. One hour after ingestion of tablet albendazole, the patient had generalized weakness, right-sided migraine and pain in right eye. Tile lesion became erythematous in the next thirty minutes. The reaction was managed symptomatically. After 10 days, provocation was done with tablet entamizole. It caused erythema in the lesion, 8 hours after ingestion of the medicine. After a week she was tested w'ith metronidazole, since dilaxonide furoate is not available as a sole preparation. One hour after taking tablet metromdazole (200 mug), the lesion became itchy and erythematous. Provocation with amoxycillin and paracetamol was negative. This proved that the eruption was due to albendazole and metronidazole.

Discussion

Various studies on this subject have been published from different parts of thw world[1-13]. A review of literature does not show any report of FDE with albendazole. However, a few cases of FDE with metronidazole[14] and its cross-sensitivity with tinidazole[15-17] have been reported. Metronidazole and tinidazole are 5-nitroimidazoles, commonly used for amoebiasis caused by Entamoeba histolytica. Albendazole is a benzimidazole anthelmintic active against most nematodes and some cestodes. It is used in the treatment of intestinal nematode infestation and in higher doses in the treatment of hydatid disease. Imidazole ring is common to both rnetromdazole and albendazole. Adverse effects include gastrointestinal disturbances, liver impairment, neutropenia and fever. Reported cutaneous side effects are telogen effluvium, contact dennatitis and contact urticaria.
Our case deserves a mention because albendazole has never been incriminated as a cause of FDE and it's concomitant cnss- sensitivity with metromdazole is also not reported.

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