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Fixed Drug Eruption Probably Induced By Paracetamol:A Case Report

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ABSTRACT
Fixed drug eruption (FDE) is a type of drug-induced skin reaction pattern that characteristically recurs at the same skin or mucosal site. Paracetamol is one of the common drugs prescribed as analgesic–antipyretic agent in all age group of patients. FDE is a well-reported, but uncommon side-effect of paracetamol, usually the classic, pigmenting type most commonly found in children and adolescents.
Keywords: Skin eruptions, Acetaminophen

I. INTRODUCTION

Fixed drug eruption (FDE) is a cutaneous adverse drug reaction commonly seen in children and adolescents that is frequently misdiagnosed, leading to recurrent eruptions when the offending drug is readministered.1 The diagnostic hallmark is its recurrence at previously affected sites. Paracetamol is a readily available over the counter (OTC)antipyretic. Despite its widespread use, adverse reactions areunusual at therapeutic dose. Its cutaneous adverse effects arerare, varying from transient pruritis or maculopapular rash toStevens-Johnson syndrome and even fatal toxic epidermalnecrolysis. (2) FDE to paracetamol is well-reported in childrenand adolescents but is rare in elderly and very few reports areavailable.

II. CASE REPORT

A 27 Year old female patient was brought with a history of recurrent episodes of eroded lesions on lower lip,4-5 episodes in last 6 months. On examination it was found to be hyperpigmented plaque with erosion on lower lip justafter paracetamol administration. The lower lips shows lesions similar to that of paracetamol induced fixed drug eruptions. The patient has medication history of paracetamol intake in the past 6 months and was not on any other treatment.Hence the provisional diagnosis of paracetamol induced fixed drug eruption was made. As there existed a differential diagnosis of the lesions as that of herpes simplex labialis, patient was advised to take T.acivir(acyclovir) 400mg TDS for 3 days with plenty of oral fluids and topical treatment on the lesions for 2 days with flutibact (fluticasone+mupirocin. On review of the patient after 5 days the condition was becoming better and was advisedto apply plain Vaseline on the lesions several times.

III. DISCUSSION

Drug eruptions have been found to contribute to 5-7% among all type of cutaneous drug reactions.
(4,5) FDE is a cutaneous type of hypersensitivity reaction to drugs. Paracetamol-inducedFDE is reported in literature in less than 1.5% of all cases of FDEs.(2) FDE is a hypersensitivity reaction mediated by T cells recognizinghaptenated drug antigens presented by epidermal cells. It was recently shown that the most probable effecter cells in established FDE are cytotoxic CD8-positive T cells with natural killer cell-associated molecules resemblingeffecter cells found in toxic epidermal necrolysis. In fully evolved FDE that eventually resolves, high numbers of intraepidermal suppressor CD4+, CD25+, Foxp3+ regulatoryT cells counteract the cytotoxic cells and ameliorate the damage.6FDEs are sharply marginated, round, erythematous to violaceous, 2-10 cm plaques occurring after ingestion of the drug. The lesions usually fl are within 30 min to 8 hrs after drug intake; mean length of time from drug intake to the onset of symptoms is approximately 2hours. (7) The acute inflammation disappears within a few days, leaving circumscribed hyperpigmentation for months or even years.8 FDEs characteristically recur in the same location after repeated ingestion of the drug. The antimicrobial drug combination trimethoprimsulfamethoxazolehas been reported as

the most commoncause of FDE. (7),9 Other causes include antimicrobials suchas tetracyclines, erythromycin, tinidazole, ampicillin,griseofulvin, clindamycin, albendazole, non-steroidalanti-inflammatory drugs agents such as aspirin, ibuprofen,diclofenac sodium, piroxicam, paracetamol1 and otherdrugs like barbiturates. (10)There are previous reports establishing FDE producingpotential of paracetamol. (6,8) However in this case, thepatient suffered from FDE due to paracetamol for thefirst time in his life though there was history of takingparacetamol many times earlier without any such occurrence.It is probably the gradual accumulation of memoryT cells over a certain period responsible for such new onsetFDEs occurring for the first time even though there washistory of drug exposure many times in the past.

IV. CONCLUSION

In countries where many drugs are availableOTC which can produce serious as well as non-seriousadverse reactions, it becomes very difficult to identifythe exact etiological agent when such a reaction occurs.Even previous history of uneventful administration of anycommonly used OTC drug does not make it safe for futureunadvised administration.

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