Fixed Drug Eruptions – A Case Series

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INTRODUCTION

Fixed drug eruption is a type of cutaneous adverse drug reactions accounting for 4-39% of all drug eruptions worldwide.[1] Paucity of data in Indian population but a systemic review reported its incidence as 20.13% amongst Cutaneous Adverse Drug Reactions.[2,3] Here we present a collection of cases observed in our patients.

CASE REPORTS

CASE NO 1: A 47 yr old with diabetic foot received Inj Metronidazole & Ceftriazone. Presented with a sharply demarcated hyperpigmented 3.5×2.5cm patch over the forehead above the right eyebrow and a circular hyperpigmented patch 1.5 × 1 cm with resolving erosion on the genitalia

CASE NO 2: A 30 yr old male with multiple oval hyper pigmented patches over arm & back. The patches were erythematous & itchy which resolved & left behind hyperpigmentation on both occasions of taking over the counter medications for pain NSAIDS (Non Steroidal Anti Inflammatory Drugs)

CASE NO 3: A 5 yr old child presented with hyper pigmented patches over upper lids & perioral region with erosions & crusting on taking Cotrimoxazole prescribed from a Primary health center for fever.

CASE NO 4: A 5 yr old male child with recurrent multiple oval to round hyper pigmented patches over trunk every time he gets treatment for cough & cold from primary health centre with Cotrimoxazole.
CASE NO 5: A 25 year old patient developed lesions over upper lip 2 days after taking over the counter tab Diclofenac (non-steroidal anti-inflammatory drugs) for back pain. He presented with well defined violaceous patch with central eczematous zone seen over upper lip.

CASE NO 6: A 45 year old male came with c/o sudden onset lesion over the glans. He was prescribed Tab Cefpodoxime by a private practitioner for indication not known.

CASE NO 7: A 58 year old female presented with oval multiple hyper pigmented patches over the trunk & thighs of 1 week duration. She was prescribed oral Norfloxacin and Tinidazole for gastroenteritis elsewhere.

CASE NO 8: A 30 year old male came with sudden onset of fluid filled lesions over the genitalia 2 days after taking tab doxycycline.

O/E: Two in number ruptured bulla with erosion over glans penis and shaft. Also over the lower lip.

CASE NO 9 & 10: A 30 yr old with hyperpigmented dusky patch with healing erosion in the centre over the lips and a 42 yr old female presented with hyperpigmented patches with erosions.

Both have taken OTC medication NSAIDS (Non steroidal anti-inflammatory drugs)

Using WORLD HEALTH ORGANISATION – UPPSALA MONITORING CENTER system causality assessment, a diagnosis of fixed drug eruption were made in all the above cases.
| CERTAIN | Event/lab test abnormality with plausible time relationship to drug intake.  
|         | Cannot be explained by disease or other drugs.  
|         | Response to withdrawal Plausible (Pharmacologically, pathologically)  
|         | Event definitive pharmacologically or phenomenologically  
|         | Re-challenge satisfactory, if necessary. |

| PROBABLE/LIKELY | Event/lab test abnormality, with reasonable time relationship to drug intake.  
|                 | Unlikely to be attributed to disease or other drugs  
|                 | Response to withdrawal clinically reasonable  
|                 | Re-challenge not required |

### DISCUSSION

Fixed drug eruption is a cutaneous adverse drug reaction characterized by recurrent well defined lesions occurring in same sites each time the offending drug is taken.\(^1\) Fixed Drug Eruption has been reported in all ages. The patients ranged from 5 to 58 years old in our cases.

**Pathophysiology:** Fixed Drug Eruption is a form of classical delayed type hypersensitivity reaction & skin resident T cells are key mediators.\(^1\)

**CLINICAL FEATURES**

Initial episode develops 1-2 weeks after 1st exposure to drug. Subsequently, develops 30 min-8 hour after re-exposure to drug.\(^1,2\)

Typically, Fixed Drug Eruption presents as sharply defined, round or oval erythematous patch or plaque which evolves to become dusky, violaceous & occasionally eczematous, vesicular or bullous.\(^1\)

May be solitary or few lesions. Multiple lesions may develop as consequence to repeated challenges.\(^1\)

Common sites–Muco cutaneous junctions lips & genitals, limbs more than trunk.

Drug induced clinical pattern – NSAIDs (non steroidal antiinflammatory drugs), Tetracycline, Cotrimaxazole over genitals & lips were seen in our cases.

Common drugs implicated Sulfonamides, NSAIDs, Tetracyclines, Quinolones, Metronidazole observed.
**TYPES OF FDE (FIXED DRUG ERUPTIONS) 2**

- Pigmenting FDE
- Non pigmented FDE
- Generalised FDE
- Wandering FDE
- Bullous FDE
- Eczematous FDE
- Urticaria FDE
- Cellulitis eruption FDE
- Linear FDE
- Erythema dyschromicum perstans type FDE
- Psoriasiform FDE
- Oral FDE
- Vulvitis FDE

**COMPLICATIONS:** Post inflammatory hyperpigmentation which persists for several months after acute episode was the commonest noted in our cases.

**INVESTIGATIONS**

1. Oral provocation of implicated drug is gold standard to confirm causation but avoided in the Bullous Fixed Drug Eruption.\(^1,4-8\)
2. Patch test- not done however it can be positive only in 50% of cases.\(^1\)
3. Causality assessments-WHO-Uppsala monitoring centre system.\(^5,6,9\)

**MANAGEMENT:** Implicated offending drug was advised to be avoided.

- Use of topical corticosteroid.
- Systemic corticosteroids-for multiple lesions.

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**CONCLUSION**

Fixed drug eruption is one of the commonest Cutaneous Adverse Drug Reactions & knowledge about common drugs causing it is essential for its management.

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**REFERENCES**