CASE SERIES

FIXED DRUG ERUPTIONS – A CASE SERIES

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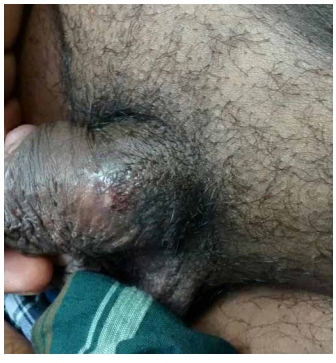
INTRODUCTION

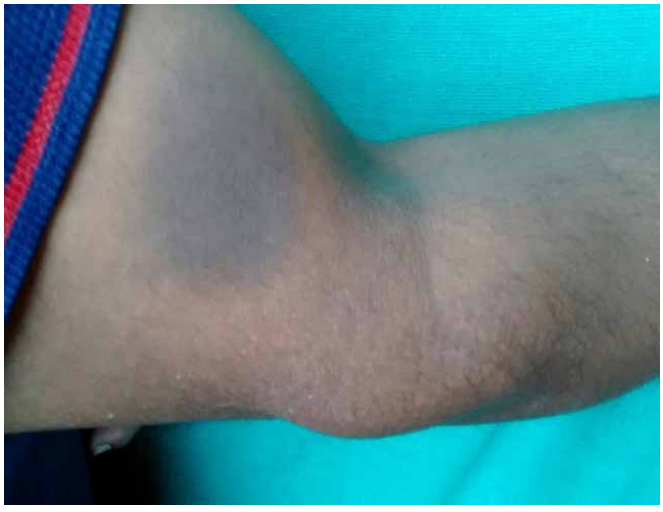
Fixed drug eruption is a type of cutaneous adverse drug reactions accounting for 4-39% of all drug eruptions worldwide.[1] Paucity of data in Indian population but a systemic review reported its incidence as 20.13% amongst Cutaneous Adverse Drug Reactions.[2,3] Here we present a collection of cases observed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

CASE REPORTS

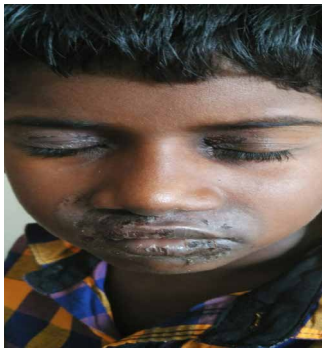
CASE NO 1: A 47 yr old with diabetic foot received Inj Metronidazole & Ceftriazone. Presented with a sharply demarcated hyperpigmented 3.5×2.5cm patch over the forehead above the right eyebrow and a circular hyperpigmented patch 1.5 × 1 cm with resolving erosion on the genitalia

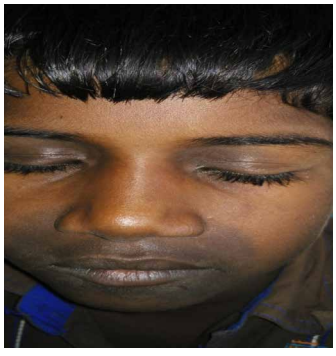


CASE NO 2: A 30 yr old male with multiple oval hyper pigmented patches over arm & back.The patches were erythematous & itchy which resolved & left behind hyperpigmentation on both occasions of taking over the counter medications for pain NSAIDS (Non Steroidal Anti Inflammatory Drugs)

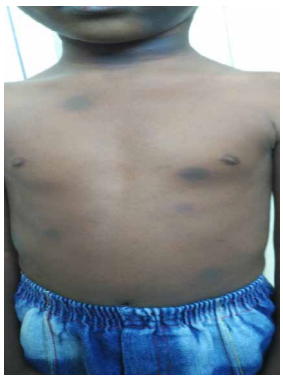


CASE NO 3: A5 yr old child presented with hyper pigmented patches over upper lids & perioral region with erosions & crusting on taking Cotrimoxazole prescribed from a Primary health center for fever.

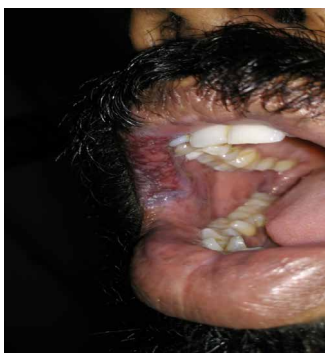
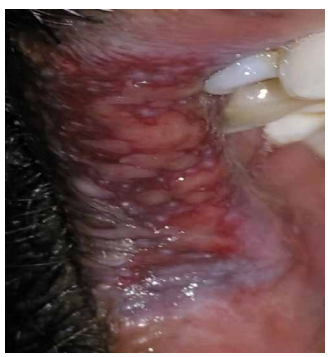




CASE NO 4: A5 yr old male child with recurrent multiple oval to round hyper pigmented patches over trunk every time he gets treatment for cough &cold from primary health centre with Cotrimoxazole.

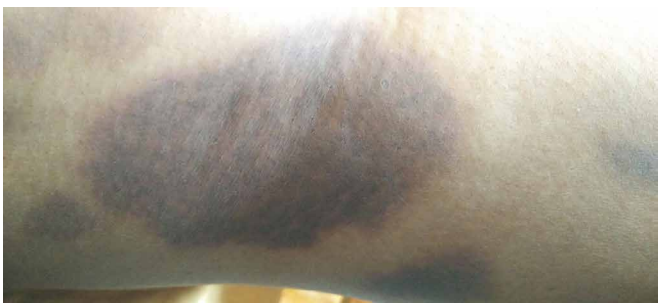



CASE NO 5: A25 year old patient developed lesions over upper lip 2 days after taking over the counter tab Diclofenac (non-steroidal anti-inflammatory drugs) for back pain. He presented with well defined violaceous patch with central eczematous zone seen over upper lip.

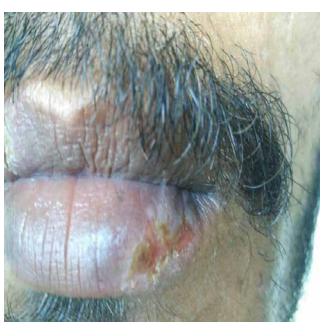
CASE NO 6: A 45 year old male came with c/o sudden onset lesion over the glans. He was prescribed Tab Cefpodoxime by a private practitioner for indication not known.

CASE NO 7: A58 year old female presented with oval multiple hyper pigmented patches overthe 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-challengesatis factory, 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]

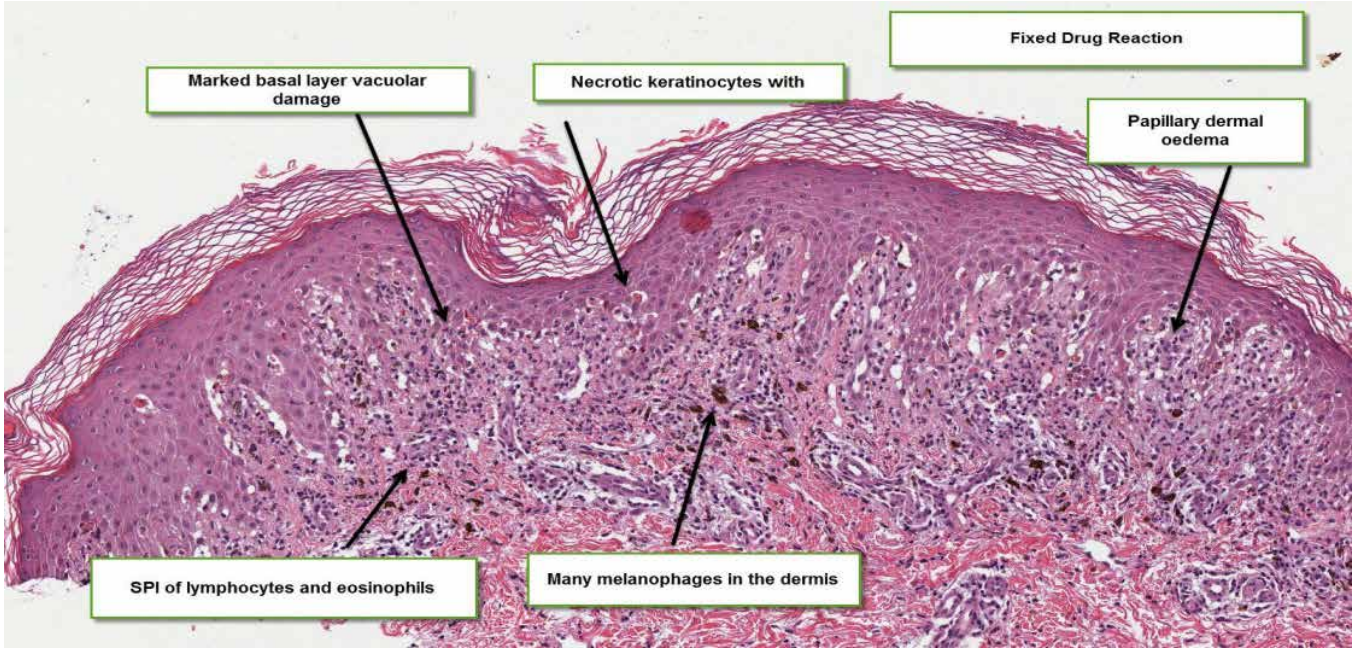
Typically, Fixed Drug Eruption presents as sharply defined, round or oval erythematous patch or plaque which evolves to become dusky, violaceous & occasionally eczematous, vesicular or bullous.[1]

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
- Erythema dyschromicum perstans type FDE
- Psoriasiform FDE
- Oral FDE
- Vulvitis FDE
- Cellulitis eruption FDE
- Linear FDE

COMPLICATIONS: Post inflammatory hyper pigmentation 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.

CONCLUSION

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

REFERENCES

4. Griffiths C, Barkar J, Bleiker T, Chalmers R, Creamer D. Rook's Textbook of Dermatology, 9th edition. Willey Blackwell; 2016 p: 118.
5. Sacchidanand, Oberai C, Inamadar AC. IADVL Textbook of Dermatology,4th edition. Bhalani: 2013. p: 2365-7.
6. Patel TK, Thakkar SH, Sharma DC. Cutaneous adverse reactions in Indian population: A systemic review. Indian Dermatol Online J 2014:5(Suppl2):S76-86.
7. Pai VV, Narayanshetty N, Likkeri SB, Shukla P, Bhandari P, Rai V. Retrospective analysis of fixed drug eruptions among patients attending a tertiary care center in southern India. Indian J Dermatol 2014;80(2):194.
8. Kameswari PD, Selvaraj N, Adhimoolam M. Fixed drug eruptions caused by cross reactive quinolones.J Basic Clin Pharm 2014;5(2):54-5.
9. Gupta LK, Beniwal R, Khare AK, Mittal A, Mehta S, Balai M. Non-pigmenting fixed drug eruption due to fluoroquinolones. Indian J Dermatol 2017;83(1):108-12.
10. Filiz C, Sirin Y, Sema A, Pembegul G. Acetaminophen-induced fixed drug eruption. Indian J Pharmacol. 2016;48(2):219-20.
11. Agarwala MK, Mukhopadhyay S, Rajasekhar M, Peter CVD. Bullous fixed drug eruption probably induced by paracetamol. Indian J Dermatol 2016;61:121
12. The use of the WHO-UMC system for standardised case causality assessment. Available from:http://www.who.int/medicines/areas/quality_safety/safety_efficacy/WHOcausalit [Last accessed on 2019 May 25].