

Lamotrigine induced rash – a case of accidental re-exposure

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Objective

- To report a case of inadvertent lamotrigine re-exposure in a child who previously experienced lamotrigine induced rash

Lamotrigine induced rash

- occurs in about 5–10% of patients¹
- results in withdrawal of lamotrigine in about 2% of patients²
- is usually described as maculopapular or morbilliform in appearance¹
- can be part of an anticonvulsant hypersensitivity syndrome consisting of fever, skin eruption or lymphadenopathy and internal organ involvement¹
- normally occurs 2–6 weeks after commencement of therapy¹
- serious, potentially life threatening rashes occurs with a incidence of approximately 0.8% in paediatrics.³

Risk factors for lamotrigine induced rash are:^{1,2,4}

- Young age
- Concurrent sodium valproate therapy
- High starting dose and rapid dose escalation.

Lamotrigine induced rash also:

- normally resolves with withdrawal of drug and requires no other treatment.

Rechallenge with lamotrigine after occurrence of a rash is rare⁵ and contraindicated in the product information.

Clinical Features

- JR, male, DOB: 03/07/1995
- Autism
- Developmental delay
- History of complex epilepsy
- Currently controlled with sodium valproate (640mg BD) and topiramate (125mg BD)
- Complex social issues
- Full time respite care (including medication administration by carer).

In 1999

- Presented to a country hospital with a rash
- Severe, generalised, pruritic
- Early features of Steven-Johnson Syndrome including mucous membrane involvement
- Lamotrigine ceased, topiramate commenced
- Rash resolved with no other sequelae over several weeks.

In 2004

- Presented to Echuca hospital with unsteady gait, intermittent vomiting and lethargy
- High serum sodium valproate level (141 microgram/mL; Reference range: 50–100 microgram/mL)
- Slowly deteriorating and increasing drowsiness
- Transfer to The Royal Children's Hospital, Melbourne

Progress and outcome

- Full recovery with no other intervention
- Discharged after three days of admission to specialised paediatric hospital
- No further complications.

On discharge

- A box of lamotrigine (dispensed by JR's community pharmacy) incorrectly labelled as topiramate was discovered by JR's mum
- JR was apparently being given, by respite carer, lamotrigine instead of topiramate for two weeks prior to admission to hospital
- The dispensing error was corrected and documentation of the rash in 1999 was made in the hospital's medical record.

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Conclusion

JR was very fortunate not to experience a recurrence of a severe rash due to this accidental re-exposure of lamotrigine.

References

1. Anderson GD. Children vs Adult pharmacokinetic and adverse effects difference. *Epilepsia* 2002; 43: 53-59.
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3. Klasco RK (Ed): DRUGDEX® System. Thomson MICROMEDEX, Greenwood Village, Colorado (Edition expires 12/2004).
4. Guberman AH, Besag FMC, Brodie MJ, Dooley JM, Duchowny MS, Pellock JM, et al. Lamotrigine-Associated Rash: Risk/Benefit Considerations in Adults and Children. *Epilepsia* 1999; 40: 985-991.
5. Besag FM, Ng GY, Pool F. Successful re-introduction of lamotrigine after initial rash. *Seizure* 2000; 9: 282-6.